Developer's Perception of Landscape Architectural Services

By

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DEVELOPER'S PERCEPTION OF LANDSCAPE ARCHITECTURAL SERVICES

PAUL DAVID KISSINGER

1989

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CHAPTER ONE

INTRODUCTION

I. Introduction:

In 1963, the American Society of Landscape Architects stated in its Report on the Profession that:

> "We must recognize that to our profession above all others, history and precedent have delegated the "stewardship of the landscape" and that in our natural and man-made landscape we are uniquely trained to conjoin in and guide the creative process of conserving, shaping, and reshaping for mankind and his purposes a more livable and expressive environment" (Simonds, 1963).

If, as Simonds states, on a historical basis we are to help guide the creative process in shaping, reshaping and conserving the environment, landscape architects need to be fully utilized in the development process. Landscape architects must work with the individuals that produce change in the environment. They should be utilized early in the process because it is an impossible task to guide a change after it is near completion or complete. In today's world, and in the foreseeable future, most changes in the urban, suburban and rural environment are being planned and implemented by private developers. Since this is the case, if landscape architects are going to fulfill the role as suggested by Simonds, they need to be active in the development arena.

The development process involves "a complex set of decisions over time by a group of key and supporting participants or decision makers". (O'Mara, 1982). This process involves the expertise of several professions, or a development team.

In a more recent Urban Land Institute publication, "Office Development", O'Mara states that "a landscape architect is valuable because he thinks of the outdoors in three dimensional terms . . . He should be brought in early, before the roads and buildings are built, and certainly not for cosmetic treatments only." (O'Mara, 1982). In addition, a landscape architect can "interact and exchange ideas with other members of the team; the result is a project that represents a coordinated whole." (O'Mara, 1982.)

II. The Study:

According to Albert Fein's report, A Study of the Profession of Landscape Architecture (1972), it is the dominant opinion of land developers "that in large proportions of their construction activities there is no need for landscape architects." (Fein, 1972) Landscape architects are often not included in such development teams, or if they are included, it is not in a supervisory role or until the very end of the project. In addition, only 26% of the land developers surveyed reported using landscape architects on their projects the previous year and these developers only used landscape architects on up to half of their projects. (Fein, 1972).

The Fein report was completed almost twenty years ago and it has been suggested that landscape architects have progressed and improved their image in the eyes of developers. Recently, the American Society Of Landscape Architects (ASLA) asked Burson-Marsteller to assess developer's opinions of landscape architectural services. A focus group of nine Urban Land Institute members from across the country were interviewed. Although not scientific research, the results suggests that landscape architects have not made a lot of progress. This is evidenced by the focus group's description of the landscape architects role. They state the role as "simply landscape design, they do not envision the landscape architect as a traffic planner, land planner or other 'specialist'." In addition, comments like "The landscape architect is almost like an afterthought" do not support the idea of much progress. But, it is suggested from a review of the landscape architecture professional literature, office brochures and ASLA professional awards, that landscape architects are indeed involved in the development arena.

The purpose of this research is to investigate whether the profession of landscape architecture, as perceived by developers, has improved their image since the Fein report of 1972. To answer this question, three major issues were identified. The first issue is to determine if developers use landscape architects, and if so, for what services? Second, how do developers rate and value landscape architectural services? Lastly, how can we, as a profession, improve our services to be a more effective player in the development arena.

III. Importance of Research:

The importance of this research is four-fold. Primarily, it will identify where the profession stands with this important client group; is it standing still, moving backward or moving forward? Secondly, the results could be used to assist those professionals that wish to become more effective in the development arena. Thirdly, it could provide educational programs information for curricula development for land development specializations; and lastly, the study will serve as a benchmark for future investigation in this area.

If the profession of landscape architecture is to continue to grow and move forward as a profession, and become involved in the development process, it is important to know if and how developers, a major client base, are using landscape architects. This is especially true if landscape architects are to fulfill the role as "stewards of the landscape" and help guide the shaping and reshaping of our environment.

From a professional standpoint, the results may show firms and individuals what types of professional services they need to market more effectively. Additionally it may show what additional services developers desire or expect from landscape architects, and if the professionals are interested in entering the development arena, they may choose to change or adjust their scope of services accordingly.

The results of this study are also important for the training of landscape architects as well as for the profession as a whole. From an academic standpoint, the results may show educators what services developers desire, and what areas landscape architecture students need to improve upon to be effective in the development arena. If landscape architects can influence developer's perceptions and attitudes, and the profession can educate themselves to be more responsive to developers concerns, then landscape architects may more effectively market their services to this client.

The results of this study will act as a benchmark for future study. If the profession has improved in the last twenty years, it would be helpful to map out where we stand today. Hopefully, the profession can continue to move forward, and with an existing benchmark it will be possible to chart future progress.

IV. Format Of Study:

Background information on the historical relationship between landscape architecture and developers and the development process are presented in chapter two. A detailed explanation of the method used to conduct the study is found in chapter three. Chapter four contains a detailed presentation of the survey results and the major conclusions of this research are found in chapter five.

CHAPTER TWO

BACKGROUND

I. Relevance Of Landscape Architectural Services To Development

Simonds states in A Report On The Profession Of Landscape Architecture "In the area of planning the most knowledgeable and able professionals are landscape architects" (Landscape Architecture Magazine, 1963). Landscape architects are trained in the design and development of exterior spaces. Land development is one of the major activities that causes change in the exterior environment. Simonds further states that, "The practice of landscape architecture comprises those professional activities relating chiefly to the creation of out-of-door places and spaces for human use and enjoyment, thus the continuing development of a more safe, healthful and stimulating environment for mankind". It has been determined by the profession that the central concerns of the profession are four-fold: 1) aesthetics 2) ecological needs 3) public health and welfare, and the 4) comfort and pleasure for the individual (Fein, 1972, ASLA Constitution). Since this is landscape architecture's professional charge, it makes sense that landscape architects should become involved in land development. We have the academic training and experience in land design and construction. The fundamental principle of landscape architecture according to John Simonds is "to plan to the site, letting the natural contours, conditions, and cover dictate the building and landscape form." Simonds also mentions in Landscape Architecture Magazine that " An important, if not the most important function of a planner is the sometimes delicate, sometimes forceful task of guiding an entrepreneur to the selection of the best possible place for a project." We as landscape architects may feel strongly in this respect, but unfortunately, historically, entrepreneurs or developers do not feel as strongly about this. Simonds states about landscape architecture and the world;

> "People are animals too. We still retain, and are largely motivated by our natural animal instincts. If we are to plan intelligently, we must acknowledge and accommodate these instincts; the shortcomings of many a project can be traced to the failure of the planner to recognize this simple task. The most significant feature of our current society is not the scale of our developments but rather our utter disdain of nature and our seemingly contempt for topography, topsoil, air currents, watersheds, and our forests and vegetal mantle." (Simonds, Landscape Architecture 1983)

Landscape architects are trained in the ways of the environment, thus it makes sense if one is going to shape and mold the environment, landscape architects should be involved in this process. George Sellers, of Heery and Heery Architects and Engineers, Inc., Atlanta states "Site design takes everything into consideration, . . . It's downright practical art."

Norman T. Newton, after publishing "A Study of Landscape Architecture", presented similar ideas about the profession. In a critique entitled Landscape Architecture: Profession in Confusion? Newton's major point was that landscape architecture is comprised of knowledge of the "arts of design," "knowledge of construction," and ". . . an equally basic concern for visible form, conservation and ecology has been an essential ingredient of landscape architecture for over a century."

II. Historical Context

Historically landscape architects have worked with developers. This is evident by looking back to the days of the Italian Villas. The villas were large tracts of land developed or modified so that people could live on the land. Frederick Law Olmstead, one of the fathers of landscape architecture was involved in the development of Central Park, and the planned community of Riverside, Illinois. From this early involvement, practitioners across the country have continued to be active with land development projects. A review of literature on the profession; ASLA career and public education material, awards issue of landscape Architecture Magazine, office brochures, reveals that today, members of the profession are heavily involved in providing a wide range of services to a broad range of land development projects. Landscape architecture has and will be involved in the development process. The amount of involvement and the beginning of commitment depends on the profession and the specific firms involved.

III. Fein Report And Conclusions

Twenty years ago, according to A Study of the Profession of Landscape Architecture, by Albert Fein and The Gallup Organization, it was an overriding opinion that there was no need for landscape architects. In addition, the study states; "clearly, a major shift in attitudes regarding landscape architecture must take place before any significant expansion of utilization by the private sector can be expected to occur" (Fein, 1972). Traditionally, "landscape architects are likely to be involved in schematic and design development, but less likely to be involved in any preliminary consultation" (Fein, 1972). Of the private sector clients that used landscape architects in the past year, " . . . the pattern is about the same, with majorities mentioning schematics, working drawings, preliminary consultation, again about half mention field supervision, and minorities report involvement at the programming stage." (Fein, 1972) Developers are utilizing landscape architects rarely, and if they are it is for schematic and preliminary design development, not final design or master planning. Developers stated, " . . . the current pattern for the private sector is for limited use of landscape architects." (Fein, 1972) In addition only 33% of land developers surveyed in the Fein report thought that landscape architects should be involved in programming. "Land developers greatest concern is Site Planning" (Fein, 1972) This may be the case, but the site planning professionals, better known as landscape architects, are not the professionals that developers are calling upon for these services. As evidenced by the fact that only 26% of the developers surveyed had actually utilized them the previous year, and even those developers used them in only half or less than half of these projects. Twenty years ago, developers did not feel that landscape architecture was needed. These quotes from the Fein report indicate that landscape architects were not thought of very highly, and were not included often in the development process.

If landscape architects were involved in a development team they were very unlikely to be involved in a supervisory capacity. Fein reports "Landscape architects are unlikely to have supervisory functions, even over other landscape architects. While they often function in all cases as a member of a landscape architect work team, they are even more likely to function as a member of an interdisciplinary work team. That is to say, landscape architects are unlikely to function in a situation in which their professional authority can be exercised without question." (Fein, 1972) Another indication of the developer's lack of confidence in landscape architects contributions, was evident by the fact that very few development companies employed landscape architects. Fein reports the "predominant pattern for the landscape architects not to be on the firms payroll."(Fein, 1972).

Most of the conclusions from the Fein Report are quite gloomy for landscape architects, but not all. Even twenty years ago, some developers recognized the profession and even felt that there was some "scarcity of landscape architects" (Fein, 1972). In addition, "Apparently, the trend among land developers is likely to shift in the near future in the direction of greater reliance upon non-engineering design professions" and "land developers anticipate an increased use of landscape architects in the next five years" (Fein, 1972).

IV. Today's Opinion

In today's world of development this opinion has changed slightly. Landscape architecture has progressed, but the profession still has a ways to go. As Philip Winslow illustrates, "in order to maximize the benefits of landscape architecture, the landscape architect must be involved in project planning from the outset, even in selecting the property. The architect and engineer can be selected later." (Engineering News Record, 1984) As a discipline, if involved from the start, services in programming, master planning and design can be fully realized by the developer and resulting project. According to the Engineering News Record of April 1984, " Landscape Architecture . . . It's an art, It's a science. It's engineering. And it's booming".

By discussing historical definitions of the profession one can see that it makes sense for landscape architects to become involved in the development process. This is easy for landscape architects to say. As mentioned beforehand, twenty years ago developers generally thought there was little use for landscape architects. This view has changed. In the Urban Land Institute publication, Office Development, O'Mara states that "a landscape architect is valuable because he thinks of the outdoors in three dimensional terms...He should be brought in early, before the roads and buildings are built, and certainly not for cosmetic treatments only." (O'Mara, 1982). In the past, the development process was considered to be a linear process, this is not feasible today (O'Mara, 1982). Due to the complexity of the development process, each step needs to be thoroughly thought out, weighed, and incorporated into the framework of the entire development process (O'Mara, 1982). Thus, it is imperative for all experts, including landscape architects, to participate in the early decision-making phases as well as the succeeding ones. A developer cannot assume the knowledge of experts as he needs the expertise of a whole development team (O'Mara, 1982). The development process involves "a complex set of decisions over time by a group of key and supporting participants or decision makers". In addition, a landscape architect can "interact and exchange ideas with other members of the team; the result is a project that represents a coordinated whole." (O'Mara, 1982.) But even to this day, in the August, 1988 edition Builder Magazine, although an unscientific study, some builders perceptions about landscape architects are archaic. The article quotes builders perceptions of landscape architects "As sod layers and petunia planters" If this might be the case in today's age, the profession has quite a ways to go to improve its image.

Burson-Marsteller, under contract with ASLA interviewed a focus group of Urban Land Institute members about landscape architects and the development process. The report contains both good news and bad news. The study was unscientific and is not considered quantitative research, thus the results are not definitive and can not be generalized to the entire development profession. Some of the "good news" was that "participants immediately identified landscape architects as part of the overall development team" and that "participants believe that landscape architecture adds value to a project and will help attract tenants to a building".

The "bad news" is that some of the attitudes found twenty years ago in the Fein Report are still present. This is evident by the findings which concluded, in the past, that, "landscape architects, however, are not considered necessary during the design and development of a project" and " . . . in most instances landscape architects should be brought in once the design phase has been completed. This report goes on to state, "These developers take a narrow, traditional view toward the landscape architecture profession". This attitude is reinforced by the following quotes from the members of the focus group:

> "The landscape architect's (job) would be like after God made a person. He'd be the one (who came in) and determine the clothes you'd wear, the hairdo. Not where the eyes are."
>
> "The landscape architect is not somebody you hire right away."
>
> "Can you imagine contacting the landscape architect before the infrastructure is complete."

"The landscape architect is almost like an afterthought."

Although the focus group stated that it does not consider the profession to be gardeners or nurserymen, their comments tend to contradict this thought. The focus group did agree that "although landscape architects were not necessary at the beginning of a project, his/her talents could greatly improve the projects value." Attitudes such as these support that as a profession, we still need to continue to move forward and educate our potential client bases.

CHAPTER THREE

METHODOLOGY

I. Research Intent

The purpose of this research is to determine how developers, a major segment of the client base, perceive the profession of landscape architecture. The thesis focuses on the question, has the profession of landscape architecture, as perceived by developers, improved their image since the Fein Report of 1972. Additionally, the study attempts to determine: 1) if developers use landscape architects, and if so, for what services, 2) how developers rate and value landscape architectural services, and 3) how the profession can improve its services to be more effective in this type of work.

This research utilizes a national survey of developers to produce an in depth and accurate study. The following activities were completed in the execution of the study:

II. Literature Search
III. Survey Development
IV. Pre-Test and Human Subjects Submittal
V. Population and Sample Development
VI. Method of Organization

VII. Method of Analysis

VIII. Limitations of Research

II. Literature Search

An extensive literature search was initiated at Kansas State University Libraries, to determine what previous research was available. This effort included a search of the main card catalog system, the card catalog system at the Kansas State University Architecture library, and two national computer data bases. This effort yielded little to no new information.

Next, an investigation was conducted at The University of Cornell Architecture Library. The card catalog and various bibliography listings were used and this inquiry produced several helpful articles and reports.

The last phase of the literature search utilized the Landscape Architecture Foundation Computer Search (LAFRICH). This database was compiled for the Landscape Architecture Foundation, and is supposed to be the most up to date information source for the profession, but it failed to produce any new sources of information. It is apparent from the literature searches that there is little background information on this topic which serves to underscore the potential importance of this study.

III. Survey Development

The survey was developed in three parts. The first part was designed to obtain demographic information about the respondents. The purpose of this section was to develop a profile of the firms responding so that it could be determined whether or not perceptions of the profession vary by demographic factors of development companies such as location, type of development, size, etc. The first seven questions were devoted to the following subjects. (See Appendix A)

1. Region of operations - eight regions were identified, including international markets, respondents were to check all that apply.
2. General type of development engaged in - land development, building development or both, respondents were to check only the one that applied.
3. Specific type of development engaged in - seven choices (commercial, office, industrial, residential, resort/recreation, shopping centers and a choice of other) were identified, developers were to check all that applied.
4. Professional associations of management - check all that apply from a list of nine professional organizations and societies.
5. Management's development experience - six choices representing zero to more than 51 years of experience, presented in ten year increments, respondents were to check one choice.
6. Average annual size of developments - total acres developed annually from zero to over 500 acres, choices presented in generally 100 acre increments.
7. Value of annual developments - total dollar volume of development brought on line annually, from 0 to over 5 million dollars with seven choices.

The second part of the questionnaire dealt with the primary issues of the specific research topic. Five questions (questions 8 - 12) were developed to ascertain if developers use landscape architects and in what capacities. **(See appendix A)** The five questions covered the following topics:

8. Use of landscape architects - does the developer use or has the developer used landscape architects in the development process.
9. Services provided by landscape architects - if they answered yes to question 8, then they proceeded to the first of four columns and checked each service a landscape architect had provided.

10. Developer's perception of what services landscape architects can provide - using the second column, respondents checked each services they perceive the profession providing.
11. Developer's perception of which services landscape architects should provide - using the third column developer's checked each service they thought the profession should provide.
12. Developer's view of which services landscape architects need to improve upon - using the forth column, developer's checked each service that they felt the profession needed to improve upon.

The service list was compiled using input from instructors and professionals at Kansas State University and from an "Outline of Designated Services" compiled by the firm of Schardt, Janelli & Becker of San Francisco. The list represented a general listing of services and contains many of the major services landscape architects provide, however it is not all inclusive.

The last segment of the survey consisted of five questions aimed at determining how developers valued the role of landscape architects. The subjects covered included:

13. When, in the process, are landscape architects used - the general choices were, simply early, middle and late, respondents were to check one answer.
14. Whether or not the landscape architects were employees of the development company.
15. Are landscape architects retained in a supervisory capacity - five choices were provided ranging from never to always.
16. Rating the services - four choices were supplied ranging from inferior to excellent, a choice for no basis for judgement was also included.

17. Rating the value of the services - five choice were provided ranging from no value to major value.

The cover letter was written as a brief introduction to the research. (see **Appendix A**) It was written on Kansas State University, Department of Landscape Architecture stationary, and co-signed by a landscape architecture faculty member. The letter asked the developer to take out ten minutes of his/her time to complete the research. In addition, it was stated that filling out the survey offered no direct benefits or risks to the participant.

IV. Pre-Test and Human Subjects Submittal

Before the final survey was completed the preliminary survey instrument was reviewed by the Kansas State University Human Subjects Committee. **(See Appendix B.)** The survey was then pre-tested using Kansas State alumni that are either developers, working with developers, or landscape architects working on development projects. The survey and cover letter were sent out with an additional letter asking the participant to make suggestions and comments. The survey was revised in response to the pre-test response.

V. Population and Sample Development and Selection

The research utilized a nation wide survey which was made possible when the author was named a recipient of the Urban Land Institutes Henry S. Miller Sr. and Jr. Land Use and Development Fellowship.

The population pool ideally would consist of all developers across the nation. Finding and obtaining such lists became impossible.

The National Association of Industrial and Office Parks (NAIOP) denoted, as a scholarship, their membership list of approximately 3,111 developers and developer/affiliates.

The American Residential Resort Developers Association (ARRDA) Who's Who list of 1987 was also used. This list provided 456 additional names. Finally, the 1987 Building Design and Construction Top 300 Builders list was obtained through the Urban Land Institute, as representative of its members. From the NAIOP, ARRDA, and Top 300 Builders lists, a total population of 3,867 developers was used. Thus, the mailing lists that were used represents an upper echelon of developers across the nation. The researcher is hopeful that the population that was used represents the "trend setters" in development.

From this total, a systematic random sample of 1,298 were sent survey instruments. Of the 1,298 surveys that were mailed, 15 were returned due to improper addresses. Thus the final number of surveys sent out was 1,283. From that 1,283 surveys, 318 were returned which represents a 24.79% response rate.

VI. Method of Organization

The organization and mechanical aspects of conducting a large survey were demanding. A computer was utilized to expedite this process. After the lists were compiled, and a systematic random sample was chosen, each of the company's name and address was entered into the computer database. WordPerfect vrs. 4.2, a word processing package, was used for this purpose. The cover letter was also typed into the computer for ease of merging the addresses and the cover letter. The cover letter excluding the salutation and date were commercially printed onto one sheet of Kansas State University, Department of Landscape Architecture stationary. The commercial printing reduced the time it would have taken to print out each entire letter individually. Each cover letter was hand fed into the printer and the addresses, salutation, and date were merged onto the cover letter. Each letter was hand signed. The envelope addresses were printed on mailing labels and affixed to each envelope.

The survey was also entered into the computer and an original was printed on a laser printer. This original was then commercially printed. After printing and collating, each survey was individually number coded by hand. Each survey instrument consisted of a hand signed cover letter, a survey and a business return envelope. The actual cost of each survey instrument including return postage, printing, paper, envelopes, etc. on the responses was approximately $.55.

VII. Method of Analysis

As the questionnaires were returned, responses for each question were tallied. The data was first analyzed by examining the response percentages each response received. This analysis provided a general but very clear understanding of how developers responded to each question.

Next, five major groups of independent variables were examined. They were 1) hired a landscape architect, 2) the employment of a landscape architect in the firm, 3) the region of operation, 4) the specific type of development and 5) the size of the firm.

The majority of the statistical work involved the use of descriptive statistics and the Chi Square test and contingency tables were used to test significance. Dbase III Plus was used for all the analytical work. For a more detailed description of the computer database and analysis program, see **Appendix** C.

VIII. Limitations of the Research

It was the researcher's intention to survey a broad cross section of developers across the nation. Locating a mailing list for such a group proved to be an impossible task. It was then decided to survey the "trend setters" in development. It was thought that the responses from the "trend setters" would be representative of the potential goals for the other developers and they would represent a desirable portion of the client base.

Question seven also posed a problem. The range of choices (0 to over five million) was too small. A better range would have gone to 500 million and over. As a result, most respondents fell into the largest category.

An overwhelming number of respondents (95%) reported having hired landscape architects. This may indicate a potential non-response bias, a tendency which may have been exacerbated by the fact that the cover letter was printed on the Landscape Architecture Department stationary and co-signed by a landscape architecture faculty member.

CHAPTER FOUR

RESULTS

I. Results/Interpretation Overview

Several assumptions were made that guided the direction of the analysis. The assumptions and how they influenced the selection of variables to investigate are outlined below.

1. Because the sample was selected randomly from a national pool, it was anticipated that a moderate number of respondents would have hired landscape architects. Based on this, a comparison between those hiring landscape architects and those that haven't hired landscape architects was planned.
2. It was anticipated that development companies in certain regions (particularly in the competitive east and west coasts) would have used landscape architects more frequently than other regions. A Chi square test of significance was planned to see if different regions in the nation hired landscape architects more frequently than the other regions.
3. It was speculated that larger developers would use landscape architects more often. Therefore, size of development company was examined.

4. It as also anticipated that landscape architectural services would be used more often by developers that are involved in various types (i.e. residential, office, commercial, etc.) of development. A comparison of responses was made between the various types of developers and the base response results.

Before running any analysis, the results were first tabulated and simple percentages were calculated to determine how the entire sample responded to each question. Ninety-five percent of all respondents reported using landscape architects. This percentage was so large that it raised questions about making comparisons with such a small sample of developers that did not use landscape architects. Therefore, it was decided not to make comparisons between the sample that had used landscape architects and the sample that had not. Instead, a comparison was made between those that hired landscape architects and the entire response group. As expected, this comparison revealed only slight differences between the two. A summary of the percentages from developers that have hired landscape architects in provided in **Appendix D.**

The analysis of the regions revealed that there was no significant difference in the hiring of landscape architects based on the regions. Comparing the percentage responses from region to the entire sample revealed no major differences in services provided and value placed on those services. A summary of the percentage response based on region is provided in **Appendix D.**

Using the simple percentages, comparisons were made between the entire sample and the average number of acres of developments completed annually and the type of developments. The comparisons showed only slight differences in the activities of landscape architects and the value of the services. A summary of this response is provided in **Appendix D.**

Looking closely at the sample, it was discovered that fifteen percent of the sample indicated that they have landscape architects employed in house. The question was raised as to whether these landscape architects perform the same activities as those not employed, hereafter referred to as consultants, in house. It was decided to investigate the significance of this relationship and the value of the work.

The remainder of this chapter contains the results and interpretations received from the entire sample and the comparison and analysis between landscape architects employed in house and those not employed in house.

II. Demographic Information - Base Data

The developers that responded to the survey represent all regions of the nation. The distribution was as follows:

Northeast States -- 19%
Southeast States -- 24%
Great Lakes States -- 10%
Midwest States -- 9%
Southwest States -- 12%
Pacific Northwest States -- 6%
Pacific Southwest States -- 16%
International Markets -- 2%

Over half of the subjects (69%) operate in one region. Twelve percent of the subjects operate in two regions and only 7% operate in over five regions.

Over half (62%) of the developers indicated that they are involved in both land and building development while 6% are involved specifically in land development and 33% in building development. This is an indication that a majority of the developers do both land and building development, and that minorities involve themselves strictly with just land development.

The specific types of developments was varied. As expected, office and industrial development were more prevalent which reflected the composition of the sample population. The percentages were as follows:

Commercial development -- 22%
Industrial development -- 21%
Residential development -- 12%

Office development -- 23%
Resort/Recreation development -- 5%
Shopping Center development -- 13%
Other types of development -- 3%

Most developers (46%) are involved with three or four development types.

The management of the development companies are members of; NAIOP and the ULI. This comes as no surprise, as a large majority of the mailing list was obtained from the NAIOP and The Top 300 Builders of 1987, a list that represents the ULI members. The responses were as follows:

AIA 10%
APA 3%
ASCE 4%
ASLA 3%
ARRDA -- 2%
ULI -- 23%
NAHB -- 7%
NAIOP -- 36%
Other Organizations -- 11%

About one third of the responding developers management has been involved in the development profession for 11 to 20 years and another third for 21 - 30 years. The responses were as follows:

0 - 10 years -- 17%
11 - 20 years -- 34%
21 - 40 years -- 31%
31 - 40 years -- 7%
41 - 50 years 3%
Over 50 years 9%

Approximately one third of the developers plan between 0 to 30 acres per year, and approximately one third plan between 30 and 100 acres per year. The responses were as follows:

0 to 30 acres per year -- 27%
30 to 100 acres per year -- 28%
101 to 200 acres per year -- 17%
201 to 300 acres per year -- 4%
301 to 500 acres per year -- 7%
Over 500 acres per year -- 17%

The question concerning the average dollar volume per year brought on line was skewed to the upper end. Sixty nine percent responded to above 5 million dollars. The responses were as follows:

0 - $100,000 -- 2%
$100,000 - $250,000 -- 1%
$250,000 - $500,000 -- 2%
$500,000 - 1 million dollars -- 5%
1 million dollars to 2 million dollars -- 8%
2 million dollars to 5 million dollars -- 15%
Above 5 million dollars -- 69%

III. Hired, Perceived, Should Provide, and Improve Data

An overwhelming number (95%) of the developers responded that they hire and have hired landscape architects.

The following are the developers responses to questions 9, through 12. (See table 1. Base Data for Questions 9 - 12) Question nine asked the developer to check all the services that he/she had hired landscape architects for. Question ten asked developers which services they perceived landscape architects performing completely and competently. Question eleven asked the developer to check all the services that he/she thinks landscape architects should provide. Question twelve asked the developer what services landscape architects need to improve upon. The percentage of responses to each question is listed in the appropriate column.

Base Data

Totals for Question #9, #10, #11, and #12	#9 Hired	#10 Perceive	#11 Should	#12 Improve
Response:	293	222	233	187
Percentages:	92.14%	69.81%	73.27%	58.81%
Services:				
Design Development/Site Planning	82.253%	75.676%	78.541%	26.738%
Agency Consult/Review Approvals/Zoning	51.195%	51.802%	64.807%	34.225%
Project Finan/Project Budgeting	22.184%	19.820%	35.622%	34.759%
Site Analysis	56.314%	58.559%	69.957%	28.877%
Erosion Control	39.932%	50.000%	63.519%	21.390%
Storm Drainage	24.573%	29.279%	39.485%	19.786%
Environmental Studies	25.939%	34.685%	46.352%	20.321%
Financial Analysis	5.461%	5.856%	13.305%	15.508%
Project Development Scheduling	13.311%	14.865%	23.605%	11.765%
Marketing/Feasibility Studies	8.532%	9.910%	16.738%	15.508%
Post Construction/Evaluation	20.137%	27.928%	42.918%	18.182%
Schematic/Preliminary Land Planning	58.703%	62.162%	67.382%	23.529%
Pre-design	40.273%	48.198%	55.794%	16.578%
Site Selection	11.604%	22.072%	37.339%	12.834%
Planting Plans	91.809%	89.640%	88.841%	23.529%
Master Plans	55.631%	57.658%	64.807%	28.877%
Preliminary Construction Cost Estimating	37.201%	37.387%	53.648%	34.759%
Irrigation	66.553%	69.369%	77.253%	22.460%
Feasibility Studies	18.089%	22.973%	33.906%	24.599%
Presentation Graphics/Public Presentations	58.703%	66.216%	70.815%	20.856%
Design Team Coordination	24.232%	22.973%	34.335%	21.390%
Construction Documents	43.345%	45.946%	53.219%	17.647%
Site Layout	50.853%	53.604%	60.515%	19.786%
Program Development	19.795%	25.225%	36.481%	17.747%
Lighting Design	39.932%	44.595%	56.223%	29.412%
Bidding (negotiations)	29.693%	36.486%	46.781%	20.856%
Project Administration	25.939%	28.829%	44.635%	21.390%
Details, Materials, Specifications	58.703%	56.757%	64.807%	22.460%
Road Alignment	24.232%	22.973%	31.760%	12.299%
Life Cycle/Value Analysis	9.556%	16.216%	32.189%	26.738%
Grading and Drainage Details	32.423%	40.090%	45.923%	21.925%
Sewer Collection	9.893%	10.360%	17.167%	8.556%
Water Distribution	12.969%	15.315%	22.747%	10.695%
Construction Administration	13.993%	18.919%	28.755%	17.112%
Maintenance Reviews and Scheduling	26.280%	32.883%	42.060%	18.717%
Other	2.389%	4.054%	3.004%	3.743%

Table 1. Base Data - Questions #9 - #12

In the hired column (question #9) ten services were over 50%. The services were as follows:

Design Development/Site Planning (82%)
Agency Consultation/Review Approvals/Zoning
Assistance (51%)
Site Analysis (56%)
Schematic/Preliminary Land Planning (59%)
Planting Plans (92%)
Master Plans 56%)
Irrigation (67%)
Presentation Graphics/Public Presentations (59%)
Site Layout (51%)
Details/Materials/Specifications (59%)

The two highest percentages were for Planting Plans and Design Development/Site Planning. Even though the highest percentage was for planting plans, landscape architects have been hired for all of the services on the service list. Some of the percentages were small, but this may be a representation of how broad ranging the profession actually is.

In the perceive column (question #10) eleven services were over 50%. The services were

Design Development/Site Planning (76%)
Agency Consultation/Review Approvals/Zoning
Assistance (52%)
Site Analysis (59%)
Erosion Control (50%)
Schematic/ Preliminary Land Planning (62%)
Planting Plans (90%)
Master Plans (58%)
Irrigation (69%)
Presentation Graphics/Public Presentations (66%)
Site Layout (54%)
Details/Materials/Specifications (57%)

The two highest percentages were for Planting Plans and Design Development/Site Planning. As with the column representing question number nine, the developers responded to all of the services on the list. Again, some of the percentages were low, but this may be another indication that some developers perceive on the broad scope of services available from the profession.

In the should provide column (question #11) fifteen services were over 50%. The services were;

Design Development/Site Planning (79%)

Agency Consultation/Review Approvals/Zoning
Assistance (65%)
Site Analysis (70%)
Erosion Control (64%)
Schematic/Preliminary Land Planning (67%)
Pre-Design (56%)
Planting Plans (89%)
Master Plans (65%)
Preliminary Construction Cost Estimating (54%)
Irrigation (77%)
Presentation Graphics/Public Presentations (71%)
Construction Documents (53%)
Site Layout (61%)
Lighting Design (56%)
Detail/Materials/Specifications (65%)

The two highest percentages were Planting Plans and Design Development/Site Planning. There were 4 more services (Pre-design, Preliminary Construction Cost Estimating, Construction Documents, Lighting Design) in the **should provide** (question #11) column than in the **perceive** (question #10) column. This difference may represent a small gap between what developer's perceive landscape architects can provide and what they feel landscape architects should provide.

In the improve column (question #12), there were seven services that were over 25%. The services were;

Design Development/Site Planning (27%)
Agency Consultation/Review Approvals/Zoning
Assistance (24%)
Project Financing/Project Budgeting (35%)
Site Analysis (29%)
Master Plans (29%)
Preliminary Construction Cost Estimating (35%)
Lighting Design (29%)

The two highest percentages were for Preliminary Construction Cost Estimating and Project Financing/Project Budgeting. The percentages found in the improve column were based on the survey response. The response to this question was low, which might have been due to the length of the survey.

Generally, there was not a large difference between the results in the first three columns (question 9, 10, & 11).

IV. Stage of Development, Rating and Value of Services

Over half (67%) of the developers hire landscape architects early in the development process. Twenty percent hire landscape architects in the middle stages of the development process and only thirteen percent hire landscape architects late in the development process. Although, sixty seven percent of the respondents utilize landscape architects early in the development process, services such as site selection, programming, feasibility studies and site analysis are utilized in low percentages. There may be a discrepancy between what developers believe constitutes early as compared with what landscape architects believe. In addition, it may be possible that due to the competitive nature of the development profession, services such as these are most often done in house.

Only fifteen percent of the developers that responded employ landscape architects in house. Eighty five percent of the developers do not employ landscape architects in house.

Over one third of the developers never use landscape architects in a supervisory capacity. An additional eighteen percent almost never use landscape architects in a supervisory capacity. The remaining percentages were as follows: Sometimes use in a supervisory capacity 28%, Almost Always in a supervisory capacity 13%, and Always use in a supervisory capacity 9%. Half of the developers never use or almost never use landscape architects in a supervisory capacity. This response does not promote the idea of much progress since the Fein Report.

Over fifty percent (51%) of the developers rate landscape architectural services as good. Only one percent feel that landscape architectural services are inferior. The remaining responses were as follows: rates L.A.'s services as fair 23%, excellent 19%, and no basis for judgement 5%. Almost seventy percent of the respondents rated landscape architectural services as either good or excellent. This is very good news to the profession and represents progress of the profession.

Fifty one percent of the developers felt that landscape architectural services are of considerable value to the typical development project. Twenty one percent felt that landscape architectural services were of major value. The other responses were as follows: of no value .327%, minimal value 7%, and moderate value 21%. Almost three quarters of the respondents estimated that landscape architectural services were of considerable to major value to the typical development project. Again, this is very good news to the profession and is a definite indication of progress.

V. Demographics - Variable: Employment in the Firm

The number of developers that employ landscape architects in house represents 15% of the sample population. Eighty-five percent of the developers that responded do not employ landscape architects in house.

The developers that employ landscape architects in their firm are distributed across the country. The regions and percentages are as follows:

Northeast States -- 21%
Southeast States -- 30%
Great Lake States -- 9%
Midwest States -- 7%
Southwest States -- 13%
Pacific Northwest States -- 5%
Pacific Southwest States -- 12%
International Markets -- 3%

Almost three quarters (72%) of the developers are involved with both building and land development. Only 15% do strictly building development and 11% land development.

All specific types of development were represented. Commercial development was the most represented at 20%. The response distribution was as follows:

Commercial development --20%
Industrial development -- 16%
Residential development -- 16%

Office development -- 19%
Resort/Recreation development -- 9%
Shopping Center development -- 13%
Other development -- 7%

The organizations that the developers are involved with varies. The NAIOP was the highest percentage, as one could again expect due to the population sample. The distribution was as follows:

AIA -- 10%
APA -- 8%
ASCE -- 4%
ASLA -- 14%
Other -- 7%
ARRDA -- 3%
ULI -- 21%
NAHB -- 9%
NAIOP -- 24

Management in a little under half (43%) of the companies that employ landscape architects in house have between 11 and 20 years of experience. The response distribution is as follows:

0 - 10 years -- 11%
11 - 20 years -- 43%
21 - 30 years -- 24%
31 - 40 years -- 2%
40 - 50 years -- 2%
Over 50 years of experience 19%.

The number of acres companies planned per year was as follows:

0 - 30 acres -- 23%,
30 - 100 acres -- 15%
101 - 200 acres -- 17%
201 - 300 acres -- 4%
301 - 500 acres -- 11%.
Over 500 acres -- 30%

The over 500 acres choice represented a third of the response. This may show that the companies that employ landscape architects in house are the firms that develope more land each year.

Almost three quarters (70%) of the population responded to over 5 million dollars. The remaining distribution was as follows:

0 - $100,000 -- 2%
$100,000 - $250,000 -- 0%
$250,000 - $500,000 -- 0%

$500,000 - 1 million dollars -- 2%
1 million - 2 million dollars -- 6%
2 million - 5 million dollars -- 13%
Above 5 million dollars -- 70%

VI. Hired, Perceived, Should Provide and Improve Data

As one might expect an overwhelming majority of the developers that employ landscape architects in house use landscape architects. Ninety-six percent use landscape architects and actually 4% responded that they do not use landscape architects. The later group may be indicating they do not hire landscape architectural firms because services are provided in house.

The following are the developers responses to questions 9, through 12. (See table 2. Employ in House Data for Questions 9 - 12) Question nine asked the developer to check all the services that he/she had hired landscape architects for. Question ten asked developers which services they perceived landscape architects performing completely and competently. Question eleven asked the developer to check all the services that he/she thinks landscape architects should provide. Question twelve asked the developer what services landscape architects need to improve upon. The percentage of responses to each question is listed in the appropriate column.

In the hired column (question #9) fifteen services were over fifty percent response. The services were;

Design Development/Site Planning (83%)
Agency Consultation/Review Approvals/Zoning Assistance (70%)
Site Analysis (74%)
Erosion Control (64%)
Schematic/Preliminary Land Planning (74%)
Pre-Design (55%)
Planting Plans (87%)
Master Plans (83%)
Preliminary Construction Cost Estimating (53%)
Irrigation (70%)
Presentation Graphics/Public Presentations (77%)
Site Layout (66%)

Lighting Design (S1%)
Details/Materials/ Specifications (70%)
Grading and Drainage Details (SS%)

The two highest percentages were Planting Plans and Design Development/Site Planning. Even though the highest percentage was for planting plans, landscape architects have been hired for all of the services on the service list. Some of the percentages were small, but this may be a representation of how broad ranging the profession actually is.

In the perceive column (question # 10) seven services had over a fifty percent response. The services were;

Design Development/Site Planning (62%)
Site Analysis (60%)
Schematic/ Preliminary Land Planning (S3%)
Planting Plans (70%)
Master Plans (S5%)
Presentation Graphics/Public Presentations (60%) Details/Materials/ Specifications (51%)

The two highest percentages were Planting Plans and Design Development/Site Planning. Again, as in the question number nine column, the highest percentage was for planting plans, but landscape architects have been hired for all of the services on the service list. Some of the percentages were small, but this may be a representation of how broad ranging the profession actually is.

Employ In House

Totals for Question #9, #10, #11 and #12	#9 Hired	#10 Perceive	#11 Should	#12 Improve
Response:	293	222	233	187
Percentages:	92.14%	69.81%	73.27%	58.81%
Services:				
Design Development/Site Planning	82.98%	61.70%	61.70%	12.77%
Agency Consult/Review Approvals/Zoning	70.21%	44.68%	51.06%	14.89%
Project Finan/Project Budgeting	25.53%	12.77%	25.53%	21.28%
Site Analysis	74.47%	59.57%	61.70%	23.40%
Erosion Control	63.83%	48.94%	57.45%	14.89%
Storm Drainage	42.55%	29.79%	34.04%	21.28%
Environmental Studies	46.81%	38.30%	44.68%	14.89%
Financial Analysis	12.77%	8.51%	10.64%	14.89%
Project Development Scheduling	23.40%	12.77%	25.53%	10.64%
Marketing/Feasibility Studies	17.02%	6.38%	19.15%	14.89%
Post Construction/Evaluation	21.28%	25.53%	38.30%	14.89%
Schematic/Preliminary Land Planning	74.47%	53.19%	57.45%	14.89%
Pre-design	55.32%	38.30%	46.81%	8.51%
Site Selection	27.66%	31.91%	44.68%	8.51%
Planting Plans	87.23%	70.21%	76.60%	19.15%
Master Plans	82.98%	55.32%	65.96%	14.89%
Preliminary Construction Cost Estimating	53.19%	38.30%	51.06%	17.02%
Irrigation	70.21%	46.81%	61.70%	17.02%
Feasibility Studies	40.43%	29.79%	36.17%	19.15%
Presentation Graphics/Public Presentations	76.60%	59.57%	63.83%	19.15%
Design Team Coordination	36.17%	27.66%	36.17%	23.40%
Construction Documents	46.81%	38.30%	46.81%	10.64%
Site Layout	65.96%	48.94%	59.57%	14.89%
Program Development	38.30%	29.79%	40.43%	8.51%
Lighting Design	51.06%	36.17%	55.32%	25.53%
Bidding (negotiations)	23.40%	31.91%	48.94%	10.64%
Project Administration	29.79%	21.28%	44.68%	19.15%
Details, Materials, Specifications	70.21%	51.06%	65.96%	17.02%
Road Alignment	38.30%	25.53%	36.17%	8.51%
Life Cycle/Value Analysis	14.89%	17.02%	34.04%	21.28%
Grading and Drainage Details	55.32%	46.81%	46.81%	14.89%
Sewer Collection	19.15%	14.89%	21.28%	6.38%
Water Distribution	21.28%	17.02%	25.53%	8.51%
Construction Administration	21.28%	21.28%	29.79%	17.02%
Maintenance Reviews and Scheduling	23.40%	21.28%	36.17%	12.77%
Other	0.00%	0.00%	0.00%	0.00%

Table 2. - Employ in House Data - for Quest. #9-#12

In the **should provide** column (question #11) thirteen services were over fifty percent. The services were;

Design Development/Site Planning (62%)
Agency Consultation/Review Approvals/Zoning

Assistance (51%)
Site Analysis (62%)
Erosion Control (57%)
Schematic/Preliminary Land Planning (57%)
Planting Plans (77%)
Master Plans (66%)
Preliminary Construction Cost Estimating (51%)
Irrigation (62%)
Presentation Graphics/Public Presentations (64%)
Site Layout (60%)
Lighting Design (55%)
Details/Materials/Specifications (66%)

The two highest percentages were Planting Plans and Design Development Site Planning. There were 6 more services (Agency Consultation/Review Approvals/Zoning Assistance, Erosion Control, Preliminary Construction Cost Estimating, Irrigation, Site Layout, Lighting Design) in the **should provide** (question #11) column than in the **perceive** (question #10) column. This difference may represent a small gap between what developer's perceive landscape architects can provide and what they feel landscape architects should provide. Its interesting to note that developers feel landscape architects should provide more services than they perceive them providing.

In the **improve** column the three highest percentages were Lighting Design 26%, Site Analysis 23%, and Design Team Coordination 23%. The percentages found in the improve column were based on the survey response. The response to this question was low, which might have been due to the length of the survey.

Generally, there was not a large difference between the results in the first three columns (question 9, 10, & 11).

VII. Stage of Development, Rating and Value of Services

Over half (59%) of the developers that responded utilize landscape architects early in the development process. Only nine percent responded that they use landscape architects in the middle stages and even less (4%) use landscape architects late in the development process.

Although, fifty-nine percent of the respondents utilize landscape architects early in the development process, services such as site selection, programming, feasibility studies and site analysis are utilized in low percentages. Again, there may be a discrepancy between what developers believe what constitutes early as compared with what landscape architects believe and in addition, it may be possible that due to the competitive nature of the development profession, services such as these are done strictly in house.

Almost half (43%) of the developers sometimes use landscape architects in a supervisory capacity. The remaining distribution is as follows: Never utilize landscape architects in a supervisory capacity 9%, Almost never utilize landscape architects in a supervisory capacity 13%, Almost always utilize landscape architects in a supervisory capacity 11%, and Always utilize landscape architects in a supervisory capacity 21%. This result indicates that there may have been progress in this area, but only for developers that employ landscape architects in house. Almost half of these developers sometimes use landscape architects in a supervisory capacity, as compared to more than half of the developers that hire landscape architects and never or almost never used landscape architects in a supervisory capacity.

The developers that employ landscape architects in house rate the landscape architectural services high. Almost half (43%) rated the services as good and forty percent rated the services as excellent. The remaining percentages were as follows: Inferior 2%, Fair 9%, and No Basis For Judgement only 2%. More than three quarters of this group rated landscape architectural services as good and excellent. This is an indication that the profession has progressed since the Fein Report of 1972.

Almost half (47%) of the developers estimated the value of landscape architectural services to the typical development project as having considerable value. Thirty-eight percent felt the services were of major value. The remaining distribution was as follows: Of No Value 0%, Minimal Value 2%, and Moderate Value 9%. Again, more than three quarters of this group estimated the value of landscape architectural services as considerable or major. This is a very strong indication that the developers that employ landscape architects in house see the profession as quite valuable.

VIII. Demographic Information - Consultants Variable

The number of developers that do not employ landscape architects in the firm is approximately eight-five percent of the sample population.

The developers that represent the consultant variable represent the entire country and the distribution is fairly even. The region distribution was as follows:

Northeast States -- 19%
Southeast States -- 23%
Great Lake States -- 11%
Midwest States -- 10%
Southwest States -- 12%
Pacific Northwest States -- 6%
Pacific Southwest States -- 17%
International Markets -- 2%

Over half (58%) of the developers are involved with both building and land development. Thirty-five percent are involved strictly with building development and only five percent strictly land development.

Office development represented the highest percentage (24%) of the specific development types the developers that do employ landscape architects in house are involved with. Again, this comes as no surprise due to the composition of the mailing lists. The response distribution is as follows:

Office -- 24%
Commercial Development -- 22%
Industrial Development -- 21%
Residential Development -- 11%,
Resort/Recreation Development -- 5%
Shopping Center Development -- 13%
Other types -- 3%

As one could expect the highest percentage of developers are involved with the NAIOP (40%). The response distribution is as follows:

AIA -- 10%
APA -- 1%
ASCE -- 4%
APA -- 1%
ASCE -- 4%
ASLA -- .52%
ARRDA -- 2%
ULI -- 23%
NAHB -- 7%
Other organizations 12%.

Over half of the developers management either have between 21 - 30 years experience (32%) and 11 - 20 years experience (31%). The response percentages are as follows:

0 - 10 years of experience -- 18%
11 - 20 years of experience -- 31%
21 - 30 years of experience --32%
31 - 40 years of experience -- 7%
41 - 50 years of experience -- 3%
Over 51 years of experience -- 7%

The average number of acres planned per year was a healthy cross section. The percentages were as follows:

0 - 30 acres -- 28%
30 - 100 acres -- 29%
101 - 200 acres -- 16%
201 - 300 acres -- 4%
301 - 500 acres -- 6%
Over 500 acres -- 14%

Almost three quarters (66%) of the population responded to over 5 million dollars. The response distribution was as follows:

0 - $100,000 -- 1%
$100,000 - $250,000 -- 1%
$250,000 - $500,000 -- 2%
$500,000 - 1 million dollars -- 5%
1 million - 2 million dollars -- 8%
2 million - 5 million dollars -- 15%
Above 5 million dollars -- 66%

IX. Hired, Perceive, Should Provide, and Improve Data

An overwhelming majority of developers, even though they do not employ landscape architects in house use landscape architects. Ninety-two percent use landscape architects and only six percent do not.

The following are the developers responses to questions 9, through 12. **(See table 3. Hired Consultants Data for Questions 9 - 12)** Question nine asked the developer to check all the services that he/she had **hired** landscape architects for. Question ten asked developers which services they **perceived** landscape architects performing completely and competently. Question eleven asked the developer to check all the services that he/she thinks landscape architects **should provide.** Question twelve asked the developer what services landscape architects need to **improve upon.** The percentage of responses to each question is listed in the appropriate column.

In the **hired** column (question #9) six services were over fifty percent. The services were;

Design Development/Site Planning --75%
Schematic/Preliminary Site Planning -- 51%
Planting Plans -- 84%
Irrigation -- 60%
Presentation Graphics/Public Presentations -- 50%
Details/Materials/Specifications -- 51%

The highest percentages were for Planting Plans and Design Development/Site Planning. Again, even though the highest percentage was for planting plans, landscape architects have been hired for all of the services on the service list. Although some of the percentages were low, this is an indication that landscape architectural services can and in some cases, do cover a very broad range of subjects.

In the **perceive** column (question #10) two services were above fifty percent. Design Development/Site Planning (51%) and Planting Plans (62%). Their were some responses to each of the services. Some of the percentages were very low, but this may be another indication that the broad range of services available from the profession are beginning to be recognized.

Hired Consultants

Totals for Question #9, #10, #11 and #12	#9 Hired	#10 Perceive	#11 Should	#12 Improve
Responses:	293	222	233	187
Percentages:	92.14%	69.81%	73.27%	58.81%
Services:				
Design Development/Site Planning	74.63%	51.49%	57.09%	16.04%
Agency Consult/Review Approvals/Zoning	42.91%	34.70%	47.01%	21.27%
Project Finan/Project Budgeting	19.78%	14.18%	26.49%	20.52%
Site Analysis	48.13%	37.69%	50.00%	16.04%
Erosion Control	32.46%	32.84%	45.15%	12.31%
Storm Drainage	19.40%	19.03%	28.36%	10.07%
Environmental Studies	20.15%	22.01%	32.46%	11.94%
Financial Analysis	3.73%	3.36%	9.70%	8.21%
Project Development Scheduling	9.70%	9.70%	15.67%	6.34%
Marketing/Feasibility Studies	6.34%	7.09%	11.19%	8.21%
Post Construction/Evaluation	17.91%	18.28%	30.22%	10.07%
Schematic/Preliminary Land Planning	50.75%	41.79%	48.13%	13.81%
Pre-design	34.33%	33.21%	40.30%	10.07%
Site Selection	7.46%	12.31%	24.25%	7.46%
Planting Plans	84.33%	61.57%	63.43%	13.06%
Master Plans	45.90%	37.69%	44.40%	17.54%
Preliminary Construction Cost Estimating	30.97%	23.88%	37.31%	21.27%
Irrigation	60.07%	48.88%	55.97%	12.69%
Feasibility Studies	12.31%	13.43%	22.76%	13.81%
Presentation Graphics/Public Presentations	50.00%	44.03%	50.00%	11.19%
Design Team Coordination	20.15%	14.18%	23.51%	10.82%
Construction Documents	39.18%	31.45%	38.06%	10.45%
Site Layout	43.66%	15.67%	41.79%	11.19%
Program Development	14.55%	15.67%	24.63%	10.82%
Lighting Design	34.33%	30.22%	38.81%	16.04%
Bidding (negotiations)	27.99%	24.25%	31.72%	12.69%
Project Administration	22.76%	19.78%	30.60%	11.57%
Details, Materials, Specifications	51.49%	37.69%	44.40%	12.69%
Road Alignment	19.40%	14.18%	20.90%	7.09%
Life Cycle/Value Analysis	7.84%	10.45%	22.01%	14.93%
Grading and Drainage Details	25.75%	25.00%	31.72%	12.69%
Sewer Collection	7.46%	5.97%	11.19%	4.85%
Water Distribution	10.45%	9.70%	15.30%	5.97%
Construction Administration	11.19%	11.57%	19.40%	8.96%
Maintenance Reviews and Scheduling	24.63%	23.51%	30.22%	10.82%
Other	2.61%	3.36%	2.61%	2.61%

Table 3. - Hired Consultants Data for Quest. #9 - #12

In the should **provide** column (question #11) five services were above fifty percent. The services were:

Design Development/Site Planning (57%)
Site Analysis (50%)
Planting Plans (63%)
Irrigation (56%)
Presentation Graphics/Public Presentations (50%)

The two highest percentages were for Planting Plans and Design Development/Site Planning. There were 6 more services (Site Analysis, Irrigation, Presentation Graphics/Public Presentations)in the should **provide** (question #11) column than in the **perceive** (question #10) column. This difference may represent a small gap between what developer's perceive landscape architects can provide and what they feel landscape architects should provide. Its interesting to note that developers feel landscape architects should provide more services than they perceive them providing. Even though the highest percentage was for planting plans, landscape architects have been hired for all of the services on the service list which may be a representation of how broad ranging some developers feel the profession should be.

In the improve column (question #12) the highest percentages were for Preliminary Construction Cost Estimating (21%), Agency Consultation/Review Approvals/Zoning Assistance (21%) and Project Financing/Project Budgeting (21%). The percentages found in the improve column were based on the survey response. The response to this question was low, which might have been due to the length of the survey.

X. Stage of Development, Rating and Value of Services

Over half (57%) of the developers that do not employ landscape architects in house utilize landscape architects early in the development process. Only eighteen percent bring landscape architects in at the middle stages of the development process and twelve percent in the late stages. Although, fifty-seven percent of the respondents utilize landscape architects early in the development process, as in the previous analysis services such as site selection, programming, feasibility studies and site analysis are utilized in low percentages. As stated earlier, there may be a discrepancy between what developers believe constitutes early as compared with what landscape architects believe. In addition, it may be possible that due to the competitive nature of the development profession, services such as these are done strictly in house.

A little over one third of the developers (34%) never use landscape architects in a supervisory capacity. Another eighteen percent almost never utilize landscape architects in a supervisory capacity. The remaining responses were as follows: Sometimes 24%, Almost Always 13%, and Always 7%. This is an indication that, as a profession, we are still not regularly utilized in a supervisory capacity.

Half of the developers felt that the services landscape architects provide are good. Another fourteen percent rated landscape architectural services as excellent. The remaining responses were as follows: Inferior 1%, Fair 24%, and No Basis For Judgement 6%. Almost two-thirds of this group (64%) rated landscape architectural services as good and excellent.

Half of the developers estimated the value of landscape architectural services to the typical development project as of considerable value. Seventeen percent felt the services were of major value. The remaining distribution was as follows: Of No Value .37%, Minimal Value 7%, and Moderate Value 22%. About two thirds of the developers that do not employ landscape architects in house evaluated landscape architectural services as having considerable or major value. This is a strong indication that developers do value landscape architectural services highly, a very strong indication of progress by the profession.

XI. Other Variables - Significance Tests

Chi square tests of significance were used to see if the practice of hiring landscape architects was significantly different between regions of the country or between the specific types of development projects. Each of the chi square test showed no significance.

In addition Chi square test of significance were calculated to see if developers who employ landscape architects in house tend to utilize them for the following services more frequently than those developers using landscape architects as consultants.

SERVICES:
program development
feasibility studies
site analysis
pre-design
grading/drainage
agency consult/review
master plans
erosion control
site selection
environ. studies
details/materials/specification
approvals/zoning assistance

All of these Chi square tests showed significant differences. Landscape architects that are employed in house are being utilized for the above services more frequently by developers than those that do not employ landscape architects in house. Some of the these services represent services that both developers and landscape architects would expect to be performed in the initial or early stages of the development process.

In addition, Chi square tests were calculated comparing the value, rating and the supervisory capacity of landscape architects for developers that employ landscape architects in house versus those that use consultants. These tests showed no significance, except for the supervisory capacity. Developers that employ landscape architects in house utilize landscape architects always or almost always in a supervisory capacity more frequently than those developers that use consultants.

In addition, twenty other variable were used to examine the services developers, 1) hire landscape architects for, 2) perceive landscape architects providing, 3) think landscape architects should provide, and 4) what landscape architects need to improve upon. The three groups of variables were region of the country, specific type of development and average number of acres planned per year. The variable list is as follows:

REGIONS:
Northeast States
Great Lake States
Southwest States
Pacific Southwest States
Southeast States
Midwest States
Pacific Northwest States
International Markets

SPECIFIC TYPE OF DEVELOPMENT:
Commercial
Industrial
Office
Resort/Recreation
Other
Residential
Shopping Center

AVERAGE NUMBER OF ACRES TYPICALLY PLANNED PER YEAR
0 - 30 acres
30 - 100 acres
101 - 200 acres
201 - 300 acres
301 - 500 acres
over 500 acres.

As the results were very similar for each of the variables, no further examination was made for this study. The results of these responses are found in **Appendix** D.

CHAPTER FIVE

CONCLUSIONS

I. The Major Question

As mentioned earlier, the purpose of this research is to investigate whether the profession of landscape architecture, as perceived by developers, has improved their image since the Fein report of 1972. To answer this question, three major issues were identified. The first issue is to determine if developers use landscape architects, and if so, for what services? Second, how do developers rate and value landscape architectural services? Lastly, how can we, as a profession, improve our services to be a more effective player in the development arena. The main thesis question is answered in two parts. The two parts consist of an examination of the number of developers utilizing landscape architects, and the value that the developers place on landscape architectural services.

II. Developer's Use of Landscape Architectural Services

Yes, the profession of landscape architecture has improved its image, as perceived by developers, since the Fein Report of 1972. Ninety-five percent of the responding developers use or have used landscape architects. This is compared to twenty-six percent of the developers twenty years ago.

As mentioned earlier, one of the major conclusions of the Fein report was that "Clearly, a major shift in attitudes regarding landscape architecture must take place before any significant expansion of utilization by the private sector can be expected to occur." The survey results and some of the conclusions from the Burson-Marsteller report indicate a shift in attitudes. Comments from the Burson-Marsteller report such as ". . . landscape architecture adds value to a project and will help attract tenants to a building." and " . . . participants immediately identified landscape architects as part of the overall development team." are evidence of this shift. It is quite evident that this major attitude shift has taken and continues to take place.

The Fein Report also concludes that developers felt that "there is no need for landscape architects". Again, today, this is clearly not the overriding opinion of developers. As one can see by examining the data for the different variables, the highest percentages for hired services are for Planting Plans and Design Development/Site Planning. However, they are hiring landscape architects for a variety of other services. The results of the survey show that all of the of the other services listed on the survey had some type of response. Additionally, development companies report landscape architects providing the following services more than 50%: Agency Consultation/ Review Approvals/Zoning Assistance, Site Analysis, Master Planning, Schematic/Preliminary Land Planning, Irrigarion and Site Layout to name a few. These percentages are illustrated in **chart 1 - Developer's Hired Services Percentages.**

It is no surprise that planting plans are the number one service sought. Although the participants in the Burson-Marsteller focus group state that they do not consider landscape architects as nurserymen or gardeners, their comments, as mentioned in the previous chapter, do not really substantiate this. Still a majority of developers look at the profession as "landscapers", and not necessarily site planners. In addition to the Burson-Marsteller report, this was reinforced by some of the comments included in the responses to this survey.

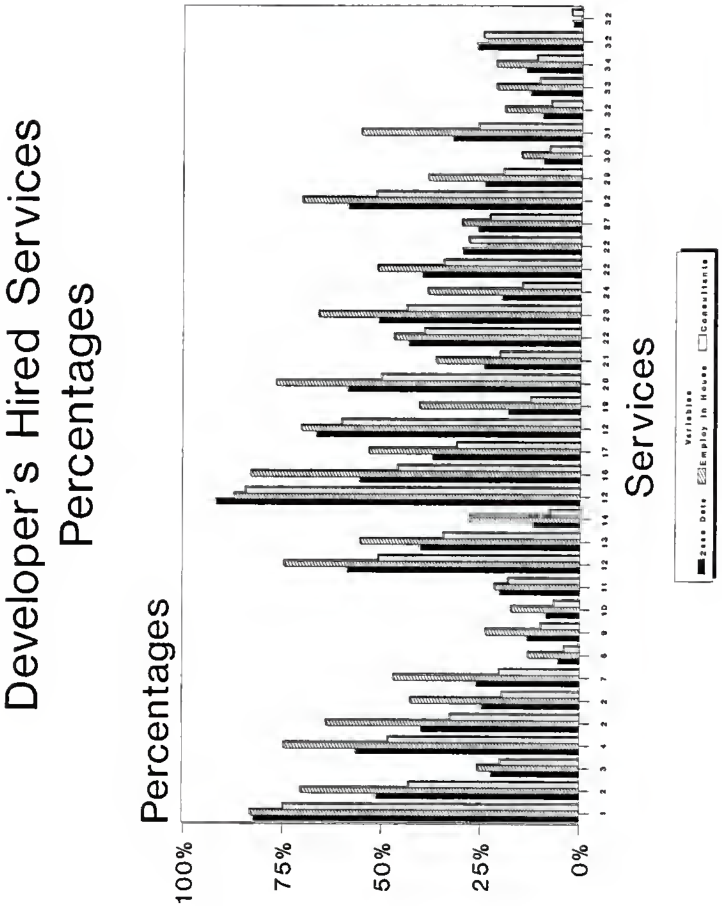

Chart 1. Developer's Hired Services Percentages

SERVICE LIST

1. Design Development/Site Planning
2. Agency Consult/Review Approvals/Zoning
3. Project Financing/Project Budgeting
4. Site Analysis
5. Erosion Control

6. Storm Drainage
7. Environmental Studies
8. Financial Analysis
9. Project Development Scheduling
10. Marketing/Feasibility Studies

11. Post Construction/Evaluation
12. Schematic/Preliminary Land Planning
13. Pre-design
14. Site Selection
15. Planting Plans

16. Master Plans
17. Preliminary Construction Cost Estimating
18. Irrigation
19. Feasibility Studies
20. Presentation Graphics/Public Presentations

21. Design Team Coordination
22. Construction Documents
23. Site Layout
24. Program Development
25. Lighting Design

26. Bidding (negotiations)
27. Project Administration
28. Details, Materials, Specifications
29. Road Alignment
30. Life Cycle/Value Analysis

31. Grading and Drainage Details
32. Sewer Collection
33. Water Distribution
34. Construction Administration
35. Maintenance Reviews and Scheduling
36. Other

Following are several of the comments about the profession. See **Appendix** E for a complete list of comments received in this study.

> "How to get the most "curb appeal" for the least cost."
>
> "In this region, (northeast) landscaping is a major aspect of a projects overall look, feel and perception in the marketplace. There are, however, very few good landscape architects. There is a need for more practical field development knowledge types who understand the dollars and cents (sense?) of design and its impact on the overall project."
>
> "I don't perceive them doing anything but a landscape plan - plant trees."
>
> "All projects to be successful must have curb appeal. First impressions are important"
>
> "Our quote on landscaping . . . 90% of the site impact is made by 10% of the project cost."
>
> "Landscape architects are capable for 'landscape' design and environmental analysis. However all to often encroach into the planning discipline (master and site) and embarrass themselves"
>
> "Landscaping enhances the finished project"
>
> "Landscaping is a major point of marketing and overall feel of a project but I have had little success in finding a landscape architect who wants to or can do more than give me a plan for plants around a house."

As a profession, landscape architecture is moving forward, growing and progressing in a positive fashion with this client base. There is, however, plenty of room for improvement because although the focus group report is not a scientific report, and projections to the entire profession of developers are not possible, it still represents some of the opinions held by developers about landscape architecture.

III. Value Issues

The results concerning the value of landscape architectural services are drawn from several survey questions. These questions are as follows:

1. When in the development process are developers involving landscape architects?

2. How do developers rate landscape architectural services?
3. Of what value are landscape architectural services to the typical development project?
4. Do developers employ landscape architects in house?

If developers are utilizing landscape architects in the early stages of the development process, this would indicate landscape architects could have the opportunity to have a major impact on the project. If landscape architects are utilized late in the process, it may be an indication that landscape architecture has a lower priority than the other professions in the development process. Obviously, if developers rate landscape architectural services high, this demonstrates they value those services. Also, if developers believe landscape architectural services add value to the typical development project, then again, it is obvious they would value those services. The idea of employing landscape architects in house also presents a new opportunity. One can speculate that if developers utilize landscape architects and value their services, it makes sense for the development company to have landscape architects involved in the company. They may feel this gives them a competitive edge which can be extremely important.

The developers responded that they utilize landscape architects early in the development process. Each of the variable groups said that they use landscape architects early in the development process over 50% of the time. **(See chart 2 - Stage of development.)**

This is good to hear, but in the Burson-Marsteller study, the opinion of several ULI developers was that landscape architects do not need to be brought in early. The thesis results contradict the opinions of the focus group. The only problem with this result is that the early services such as programming, site selection and feasibility studies, for example are not being utilized in high percentages. **(See chart 1. - Developer's Hired Services Percentages)** So, if developers are using landscape architects early, it would seem that they are not using them for the actual beginning stages of the development process. This may be due to a possible discrepancy between what landscape architects think constitutes early in the development process and what developers think constitutes what early.

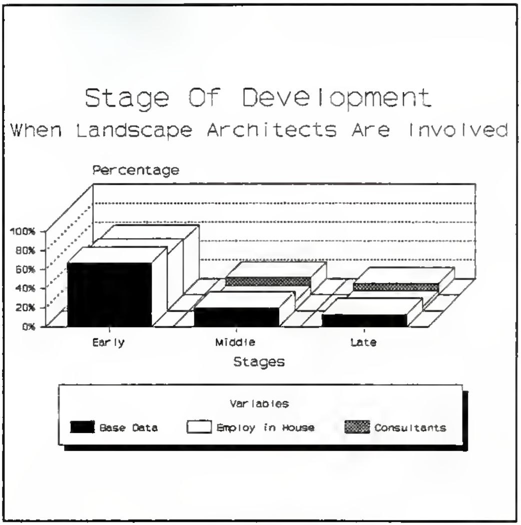

Chart 2. Stage of Development

The Fein report states that "Landscape architects are unlikely to have supervisory functions, even over other landscape architects. Overall, landscape architects are unlikely to have supervisory functions, even over other landscape architects. While they often function in all cases as a member of a landscape architect work team, they are even more likely to function as a member of an interdisciplinary work team. That is to say, landscape architects are unlikely to function in a situation in which their professional authority can be exercised without question." These results indicate landscape architects have not improved much in this area. Developers are rarely utilizing landscape architects in a supervisory capacity. **(See chart 3 - Supervisory Capacity)** The only group that has progressed since the Fein report are those landscape architects that are employed in house by developers. They **sometimes** utilize landscape architects in a supervisory capacity approximately 40% of the time. Other than this group, there has been very little progress.

It is quite clear that developers have changed their mind about how they rate the profession of landscape architecture. Twenty years ago, the outlook by developers concerning the profession of landscape architecture was quite dismal. Today, almost three quarters of the developers rated landscape architectural services as good or excellent. Very, very small percentages feel that landscape architectural services were inferior. **(See chart 4 - Rating of Landscape Architectural Services)**

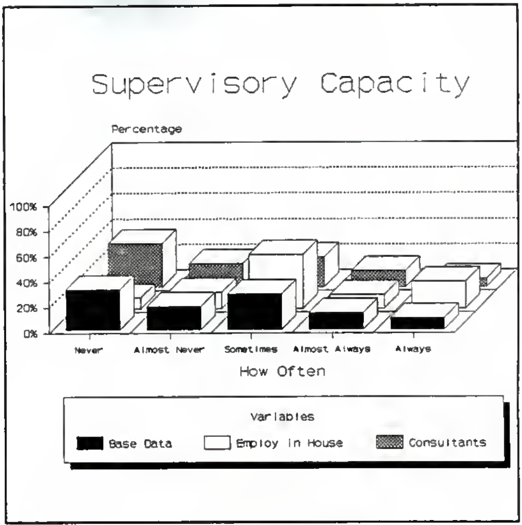

Chart 3. Supervisory Capacity

In addition, developers have also stated that they believe that landscape architectural services add to the value of the typical development project. The responses indicated that developers feel at least landscape architectural services add moderate value to the project, almost three quarters of the developers felt that landscape architectural services added considerable to major value to the project. **(See chart 5 - Estimated Value of Landscape Architectural Services)** This is very good news to the profession. Developer's have indicated that they use landscape architects for more than Planting Plans and Design Development/Site Planning, and they have stated that they value these services.

After examining the results, the developers that employ landscape architects seem to have a better understanding and higher regard for landscape architectural services. The differences between the hired percentages was in some cases very great. This is illustrated in **chart 6 - Hired Percentages for Employ in House Versus Hire Consultants.** The trend seems to

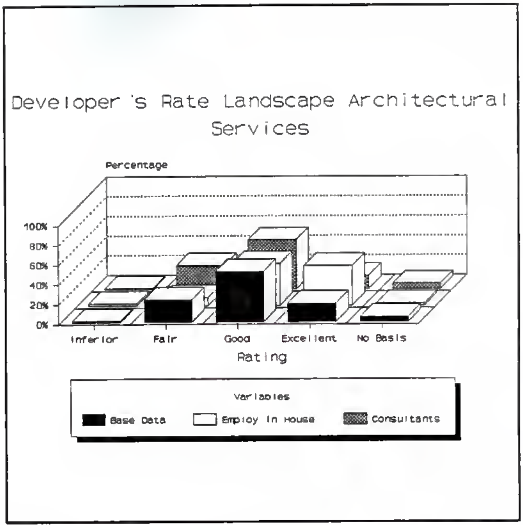

Chart 4. Rating of Landscape Architectural Services

be that when a development company employs landscape architects in house, they are utilized more, and especially more for services that fall early in the development process. For example, looking at site selection as a service, developers that use landscape architects as consultants only utilize landscape architects for this service for 7% of the time, while developers that do employ landscape architects in-house utilize this service 28% of the time, a significant difference. Some other examples are; programming, a difference of 24%, environmental studies, a difference of 27%, and schematic/preliminary land planning, a difference of 24%. Even with financial analysis, a service most would presume not many landscape architects provide, there was a difference of 9%, which represents a 300% increase in the frequency with which landscape architects provide this service. As indicated in chapter four, developers that employ landscape architects in house tend to utilize landscape architects significantly more for the following services than those developers that use landscape architects as consultants.

SERVICES:
program development
feasibility studies
site analysis
pre-design
grading/drainage
agency consult/review
master plans
erosion control
site selection
environ. Studies
details/materials/specifications
approvals/zoning assistance

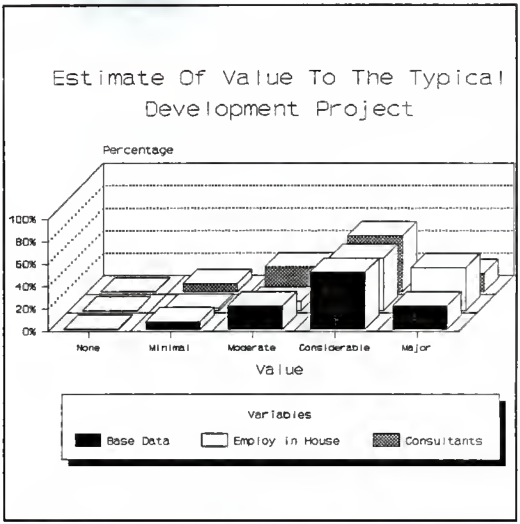

Chart 5. Estimated Value of Landscape Architectural Services

It would seem that the developers that employs landscape architects in house may become the wave of the future, or at least represents a potential employment opportunity and major client base for landscape architects to pursue. One may speculate that these developers have decided upon the value and cost effectiveness of good site planning, and that they feel landscape architecture is the profession that should supply these services. Obviously, they feel landscape architects can add more to a project by performing other services than planting plans, and planting plan related services.

IV. Progress of the Profession

From the results of the study, the profession of landscape architecture has made some serious strides forward since the Fein report of 1972. It has progressed tremendously in some areas. But, the profession still has a ways to go. I believe that this advancement can happen and will happen. Comments like some of the ones found in the Burson-Marsteller report and general comments included on the survey indicate that landscape architects to some degree are still perceived as "landscapers". The profession of

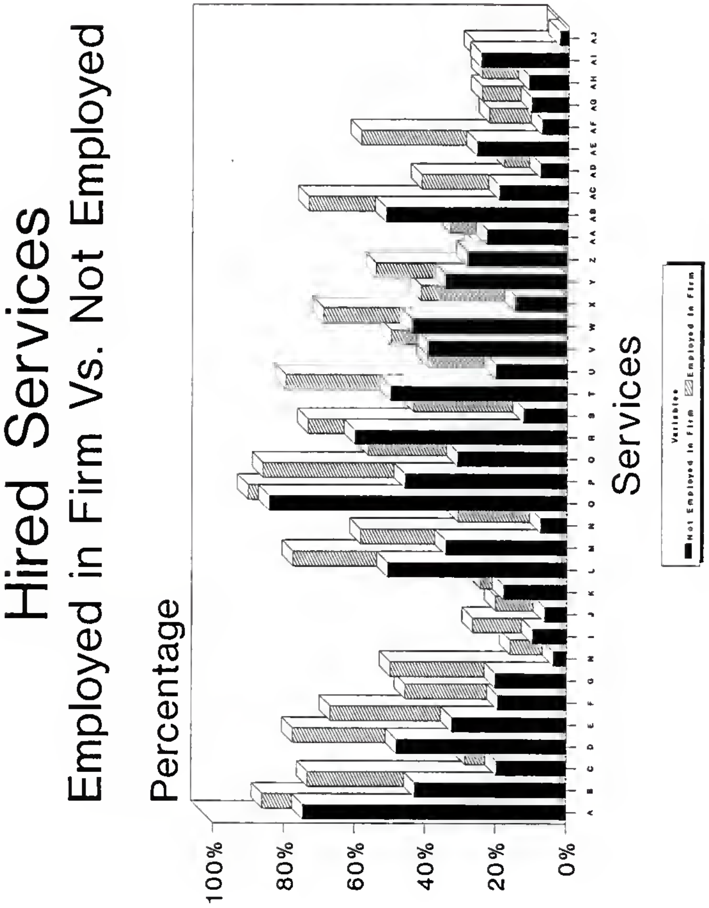

Chart 6. Hired Percentages for Employ in House Versus Hire Consultants

SERVICE LIST

1. Design Development/Site Planning
2. Agency Consult/Review Approvals/Zoning
3. Project Financing/Project Budgeting
4. Site Analysis
5. Erosion Control

6. Storm Drainage
7. Environmental Studies
8. Financial Analysis
9. Project Development Scheduling
10. Marketing/Feasibility Studies

11. Post Construction/Evaluation
12. Schematic/Preliminary Land Planning
13. Pre-design
14. Site Selection
15. Planting Plans

16. Master Plans
17. Preliminary Construction Cost Estimating
18. Irrigation
19. Feasibility Studies
20. Presentation Graphics/Public Presentations

21. Design Team Coordination
22. Construction Documents
23. Site Layout
24. Program Development
25. Lighting Design

26. Bidding (negotiations)
27. Project Administration
28. Details, Materials, Specifications
29. Road Alignment
30. Life Cycle/Value Analysis

31. Grading and Drainage Details
32. Sewer Collection
33. Water Distribution
34. Construction Administration
35. Maintenance Reviews and Scheduling
36. Other

landscape architecture is a very broad field and includes a great deal more than landscaping. The developer's responses have indicated that they understand this.

There is a small percentage (15%) of the developers that employ landscape architects in house. Although we cannot compare this to conditions twenty years ago as reported in the Fein report, this probably represents a definite improvement. These developers are utilizing landscape architects for the early services in the development process, significantly more than those that use landscape architects as consultants. This trend possibly represents future opportunities for the profession. This study surveyed what may be considered the trend setters of the development profession. This group, obviously successful, does use landscape architects. As the rest of the development profession sees this trend, they may be more receptive to using landscape architects, which represents better opportunities for the profession.

V. Areas For Improvement

Most developers felt that landscape architects need to improve upon services that are related to the financial aspect of development. Services such as Project Financing/Project Budgeting, Feasibility Studies, Preliminary Construction Cost Estimating and Agency Consultation/Review Approvals/Zoning Assistance. This really comes as no surprise. The development process involves complex decisions that must take into account all aspects of the project. For these decisions to be made, the development team needs to be aware of the talents and skills of the other professionals. If landscape architects do not have at least a general understanding of the financial aspects, it may become difficult for them to understand the entire development picture and what drives decisions in this process. As landscape architects are trained in school, examining the overall picture is important and vital to any project. If developers are more confident that landscape architect's understand the financial aspects of the development process, it may open the doors for more landscape architects to become involved in land development, and to have a greater impact on the process and thus the land.

VI. Future of the Profession

Clearly, this study indicates that working in house for developers is an employment opportunity for landscape architects. The small percentage of developers that employ landscape architects in house may represent a larger opportunity for consultant work. This should be examined closely, due to the fact that land development is a highly competitive field and those developers that employ landscape architects in house may feel that it provides them with a competitive edge, and they might not want to involve outside landscape architect consultants. If on the other hand, landscape architects are successful in working for this group as consultants they may find themselves in a position to provide more services, and to have more impact on the development process and the land. The profession has stated, that as landscape architects we are charged with being stewards of the land. To accomplish this, the profession, needs to influence the individuals and process that are making the changes on the land. As the results show, landscape architects are providing a wide variety of services to development companies and their services are rated highly. Therefore, it can be concluded that landscape architects have progressed, and are having more impact on the development process. Perhaps the work being done by landscape architects employed by development companies points to a potential expanded role for the profession. If the profession seizes this opportunity, it would strengthen it ability to fulfill its charge as stewards of the land.

The areas identified for improvement may be of some value to the academic community. Although these conclusions should be treated carefully due to a low response rate, they may indicate areas for educational specializations. Graduate curricula could examine these areas, and possibly promote them as subject areas within development specializations in graduate programs.

VII. Areas of Future Study

From this research several areas of further research have come to the author's attention. The profession of landscape architecture does not have any definitive information on what services landscape architects provide, especially to the developer client. The author realizes that the profession is a very broad profession and that individual landscape architects provide individual services, but before the profession can really educate the public and potential client bases about the profession, it needs to have, in a general sense, a clear understanding of what landscape architects can offer.

In addition, there were some gaps between what developers think landscape architects should provide and what landscape architects are being hired to do. Couple this with the subjects identified for improvement and these may be an indication that landscape architects do not provide such services or not to the extent desired. This could be useful information to the academic profession. If developers are looking at landscape architects for certain services and the profession is not providing them, then it is possible that education may want to focus on these areas.

Another area of future study encompasses the value added area. Developers feel that landscape architectural services add to the typical development project, but if specific percentages could be discovered landscape architects would have a great marketing tool. If a landscape architect could say to a developer, if you hire me for these services, generally you can add "x" amount of value to your project. This would translate to a dollar amount, and a great selling point to developers.

One other area of possible future investigation would be to determine how landscape architects see themselves being involved in the development process.

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APPENDICES A-E

APPENDIX A

Cover Letter

^F1^ ^F2^ ^F3^ ^D
^F4^

Dear ^F1^ ^F3^:

We are researching developer's perceptions and attitudes of landscape architectural services. The purpose of this research is two-fold. First, we want to determine if developers are using landscape architects and if so, for what services. Second, we want to determine if developers feel landscape architectural services can be improved to meet their needs. The intent of this study is to communicate our findings to landscape architects with the expectation that they can use the information to become more responsive and effective in the delivery of services to your profession.

Please set aside 10 minutes and participate in the research by completing the enclosed survey. Your answers will be held in confidence, as no information will be revealed to any other individual. Although your participation in the survey is strictly voluntary and it offers no direct benefits or risks to you, YOUR PARTICIPATION IS GREATLY APPRECIATED. The survey has been sent to a selected sample of developers across the nation, thus your response is vital.

A self addressed stamped envelope is included for your convenience in returning the completed survey as soon as possible.

If there are any questions about the survey, or if additional copies are needed, please call the Kansas State University Department of Landscape Architecture at (913) S32-S961 and leave a message for Professor Tony Barnes or Paul Kissinger.

The results of this research will be available in May, 1989. If you wish a summary of the results, please complete the form at the end of the survey and we will be happy to send you a copy. Thank you very much for your participation.

Sincerely,

Alton A. Barnes Jr.
Professor of Landscape Architecture

Paul D. Kissinger
Graduate Student

enclosures

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

INSTRUCTIONS: Please read carefully and answer the following questions. Please indicate your answers by circling the letter preceding the appropriate response(s).

1. In what region(s) do you operate? Please mark all that may apply.
   a. Northeast States
   b. Southeast States
   c. Great Lake States
   d. Midwest States
   e. Southwest States
   f. Pacific Northwest States
   g. Pacific Southwest States
   h. International Markets

2. What type of development does your firm primarily involve itself with?
   a. Buildings: residential units, office, commercial, etc.
   b. Land: zoning, roads, utilities, etc.
   c. Both

3. What type(s) of development does your firm do? Please mark all that may apply.
   a. Commercial
   b. Industrial
   c. Residential
   d. Office
   e. Resort/Recreation
   f. Shopping Centers
   g. Other, please specify ___________

4. Which of the following national professional associations or trade organizations are your principals associated with? Please mark all that may apply.
   a. AIA
   b. APA
   c. ASCE
   d. ASLA
   e. ARRDA
   f. ULI
   g. NAHB
   h. NAIOP
   i. Other, please specify _______________________

5. How long has the firm's management been involved in development.
   a. 0 - 10 years
   b. 11 - 20 years
   c. 21 - 30 years
   d 31 - 40 years
   e. 21 - 30 years
   f. 31 - 40 years
   g. 41 - 50 years
   h. over 51 years

6. How many acres per year does your firm typically plan?
   a. 0 - 30 acres
   b. 30 - 100 acres
   c. 101 - 200 acres
   d. 201 - 300 acres
   e. 301 - 500 acres
   f. over 500 acres

7. Please indicate the firm's yearly average dollar volume of development brought on line for occupancy/use.
   a. 0 - $100,000
   b. $100,000 - $250,000
   c. $250,000 - $500,000
   d. $500,000 - 1 million dollars
   e. 1 million - 2 million dollars
   f. 2 million - 5 million dollars
   g. above 5 million dollars

8. Do you or have you used landscape architects in your development process?
   a. YES
   b. NO

   If you answered **YES** to question number 8, please proceed to question 9.
   If you answered **NO** to question number 8, please proceed to question 10.

9. For what services have you hired landscape architects? Please check all of the boxes in **COLUMN A** that may apply.

10. Which services do you perceive landscape architects performing completely and competently? Please check all boxes in **COLUMN B** that may apply.

11. Which services do you think landscape architects should provide? Please check all of the boxes in **COLUMN** O that may apply.

12. What services do you think landscape architects need to improve upon to be more effective in the development arena? Please check all of the boxes in **COLUMN** O that may apply.

	COLUMN A Quest. 9 "Hired"	COLUMN B Quest. 10 "Perceive"	C	COLUMN D Quest. 11 "Provide"	COLUMN Quest. 12 "Improve"
Design Development/Site Planning					
Agency Consultation/Review Approval/Zoning Assistance					
Project Financing/Project Budgeting					
Site Analysis					
Erosion Control					
Storm Drainage					
Environmental Studies					
Financial Analysis					
Project Development Scheduling					
Marketing/Feasibility Studies					
Post Construction/Evaluation					
Schematic/Preliminary Land Planning					
Pre-design					
Site Selection					
Planting Plans					
Master Planning					
Preliminary Construction Cost Estimating					
Irrigation					
Feasibility Studies					
Presentation Graphics/Public Presentations					
Design Team Coordination					
Construction Documents					
Site Layout					
Program Development					
Lighting Design					
Bidding (Negotiations)					
Project Administration					
Details, Materials, and Specifications					
Road Alignment and Profiles					
Life Cycle/Value Analysis					

Grading and Drainage Details
Sewer Collection
Water Distribution
Construction Adminstration
Maintenance Reviews and Scheduling
Other, please explain ____________________

13. Generally, when during your development process do you utilize landscape architects?
    a. early
    b. middle
    c. late

14. Do you employ a landscape architect(s) in your firm?
    a. YES b. NO

15. Do you retain a landscape architect on your development team in a supervisory capacity?

1	2	3	4	5
never almost	never	sometimes	almost always	always

16. How would you rate the services provided by landscape architects? Please circle the appropriate number.

1	2	3	4	5
inferior	fair	good	excellent	no basis for judgement

17. What is your estimate of the value of landscape architectural services to the typical development project?

1	2	3	4	5
of no value	minimal value	moderate value	considerable value	major value

18. If you desire to make any comments, please feel free to do so in the space provided below.

Thank you very much for your time. It is greatly appreciated. If you would like a summary sheet of the survey results, please indicate your address below, tear off bottom of survey along dotted line,
and return the tear away under a separate cover to insure confidentiality. A summary sheet will be sent when the results are collated.

CUT SHEET HERE

Please indicate your address below:

APPENDIX B

COLLEGE OF ARCHITECTURE AND DESIGN

APPLICATION FOR APPROVAL TO USE HUMAN SUBJECTS

TITLE: Developers Perception of Landscape Architects, and Landscape Architectural Services
NAME OF INVESTIGATOR: Paul D. Kissinger
DEPARTMENT: Landscape Architecure

NAME OF SPONSOR/ADVISOR (IF ANY): Professor Alton Barnes
INCLUSIVE DATES OF PROJECTS: April, 1988 to May 1989
SUMMARY/PURPOSE OF RESEARCH:

1. Ascertain the level of understanding developers have of landscape architectural services.
   a. Do developers understand what services are available from landscape architects?
   b. If landscape architects are used, for what services?

2. Determine and understand what services the developers need so that landscape architects, and educators can be more responsive and effective in this arena.

SUBJECT INFORMATION:

Approximate age range of subjects
21 to 70

From what source will subjects be obtained?
Published membership lists of professional and trade organizations

How will subjects be selected for the study?
Random selection from published membership lists

INFORMED CONSENT:

Included in the survey instrument, as the cover letter. The cover letter may be found in the research proposal's appendix.

PRIVACY:

Each survey instrument shall be coded, so that the subjects anonymity is maintained. In addition, there are no questions on the survey that ask for any personal information, or identification.

RISKS AND BENEFITS:

Are there any risks to human subjects?
NO
The risks of harm anticipated in the proposed research are not greater, considering probability and magnitude, than those ordinarily encountered in daily living or during the performance of routine physical or psychological examinations or tests.

Are any emergencies anticipated?
NO
Describe the benefits of the research to the subjects
None

Describe the benefits of the research to the discipline/profession
The significance of the results are two-fold. From an academic standpoint, the results may show educators what services developers desire, and what areas landscape architecture students need to improve upon to be effective in the development arena. From a professional standpoint, the results may show firms and individuals what types of services they need to market more effectively.

STATEMENT OF AGREEMENT:

The individual named below certifies that he/she is willing to conduct these activities in accordance with the policies of the University Committee and the Subcommittee of the College of Architecture and Design. After approval by the Subcommittee, this individual is entirely responsible for the conduct of the research. Further, this individual certifies that any changes in procedures form those outlined above or in the attached proposal will be cleared through the Subcommittee of the College if Architecture and Design.

SIGNED: ______________________ DATE: ______________
(applicant)

APPENDIX C

Dbase III Plus Analysis Program

```
USE DATA

accept ’Please type Independent variable precisely:  ’ to IND
accept ’name of variable, ie. (5 SPACES) hired, Northeast, etc ’ to INDR
*
*
SET PRINT ON
? ’ DATA  FOR DEVELOPERS WHO &INDR COMPARED WITH’
? ’    DEVELOPERS WHO HAVE NOT &INDR      ’
?
SET PRINT OFF
*REGIONS
COUNT FOR.NOT.SURVEY_NO=’ ’ TO INDP
COUNT FOR &IND .AND.’a’$one to monea
COUNT FOR &IND .AND.’b’$one to moneb
COUNT FOR &IND .AND.’c’$one to monec
COUNT FOR &IND .AND.’d’$one to moned
COUNT FOR &IND .AND.’e’$one to monee
COUNT FOR &IND .AND.’f’$one to monef
COUNT FOR &IND .AND.’g’$one to moneg
COUNT FOR &IND .AND.’h’$one to moneh
COUNT FOR.NOT.&IND .AND.’a’$one to nmonea
COUNT FOR.NOT.&IND .AND.’b’$one to nmoneb
COUNT FOR.NOT.&IND .AND.’c’$one to nmonec
COUNT FOR.NOT.&IND .AND.’d’$one to nmoned
COUNT FOR.NOT.&IND .AND.’e’$one to nmonee
COUNT FOR.NOT.&IND .AND.’f’$one to nmonef
COUNT FOR.NOT.&IND .AND.’g’$one to nmoneg
COUNT FOR.NOT.&IND .AND.’h’$one to nmoneh
count for &IND .AND.NO_REG=1 TO NREG1
COUNT FOR &IND .AND.NO_REG=2 TO NREG2
COUNT FOR &IND .AND.NO_REG=3 TO NREG3
COUNT FOR &IND .AND.NO_REG=4 TO NREG4
COUNT FOR &IND .AND.NO_REG=5 TO NREGS
COUNT FOR &IND .AND.NO_REG>S TO NREGX
count for.NOT.&IND .AND.NO_REG=1 TO NNREG1
COUNT FOR.NOT.&IND .AND.NO_REG=2 TO NNREG2
COUNT FOR.NOT.&IND .AND.NO_REG=3 TO NNREG3
COUNT FOR.NOT.&IND .AND.NO_REG=4 TO NNREG4
COUNT FOR.NOT.&IND .AND.NO_REG=5 TO NNREGS
COUNT FOR.NOT.&IND .AND.NO_REG>S TO NNREGX
count for one=’a’.or.’b’$one.or.’c’$one.or.’d’$one.or.’e’$one.or.’f’$one;
.or.’g’$one.or.’h’$one to total

SET PRINT ON
? ’ TOTAL NUMBER OF RESPONDENTS TO SURVEY = ’,INDP
?
? ’          RESULTS FOR QUESTION ONE’
```

```
?
? "REGION                    NO. OF DEVELOPERS &INDR  NOT &INDR     TOTAL"
?
?
? 'NE                    = ',MONEA,NMONEA,MONEA+NMONEA
? 'SE                    = ',MONEB,NMONEB,MONEB+NMONEB
? 'GL                    = ',MONEC,NMONEC,MONEC+NMONEC
? 'MW                    = ',MONED,NMONED,MONED+NMONED
? 'SW                    = ',MONEE,NMONEE,MONEE+NMONEE
? 'PN                    = ',MONEF,NMONEF,MONEF+NMONEF
? 'PS                    = ',MONEG,NMONEG,MONEG+NMONEG
? 'INT                   = ',MONEH,NMONEH,MONEH+NMONEH
?
? 'ONE REGION              ',NREG1,NNREG1,NREG1+NNREG1
? 'TWO REGIONS             ',NREG2,NNREG2,NREG2+NNREG2
? 'THREE REGIONS           ',NREG3,NNREG3,NREG3+NNREG3
? 'FOUR REGIONS            ',NREG4,NNREG4,NREG4+NNREG4
? 'FIVE REGIONS            ',NREGS,NNREGS,NREGS+NNREGS
? 'MORE THAN S             ',NREGX,NNREGX,NREGX+NNREGX
?
? ' Number of respondents to question 1 = ',total
? ' Percent responding to question 1    = ',TOTAL/INDP*100
?
set print off
*chi square routine
STORE MONEA+NMONEA TO ROWA
STORE MONEB+NMONEB TO ROWB
STORE MONEC+NMONEC TO ROWC
STORE MONED+NMONED TO ROWD
STORE MONEE+NMONEE TO ROWE
STORE MONEF+NMONEF TO ROWF
STORE MONEG+NMONEG TO ROWG
STORE MONEH+NMONEH TO ROWH
STORE ROWA+ROWB+ROWC+ROWD+ROWE+ROWF+ROWG+ROWH TO SAMP
STORE MONEA+MONEB+MONEC+MONED+MONEE+MONEF+MONEG+MONEH TO COLIND
STORE
NMONEA+NMONEB+NMONEC+NMONED+NMONEE+NMONEF+NMONEG+NMONEH TO
COLNIND
STORE (ROWA*COLIND)/SAMP TO CONEA
STORE (ROWA*COLNIND)/SAMP TO CNONEA
STORE (ROWB*COLIND)/SAMP TO CONEB
STORE (ROWB*COLNIND)/SAMP TO CNONEB
STORE (ROWC*COLIND)/SAMP TO CONEC
STORE (ROWC*COLNIND)/SAMP TO CNONEC
STORE (ROWD*COLIND)/SAMP TO CONED
STORE (ROWD*COLNIND)/SAMP TO CNONED
STORE (ROWE*COLIND)/SAMP TO CONEE
STORE (ROWE*COLNIND)/SAMP TO CNONEE
STORE (ROWF*COLIND)/SAMP TO CONEF
STORE (ROWF*COLNIND)/SAMP TO CNONEF
STORE (ROWG*COLIND)/SAMP TO CONEG
STORE (ROWG*COLNIND)/SAMP TO CNONEG
STORE (ROWH*COLIND)/SAMP TO CONEH
STORE (ROWH*COLNIND)/SAMP TO CNONEH
STORE (MONEA-CONEA)^2/CONEA TO CHIA
STORE (NMONEA-CNONEA)^2/CNONEA TO CHINA
STORE (MONEB-CONEB)^2/CONEB TO CHIB
STORE (NMONEB-CNONEB)^2/CNONEB TO CHINB
STORE (MONEC-CONEC)^2/CONEC TO CHIC
STORE (NMONEC-CNONEC)^2/CNONEC TO CHINC
STORE (MONED-CONED)^2/CONED TO CHID
STORE (NMONED-CNONED)^2/CNONED TO CHIND
STORE (MONEE-CONEE)^2/CONEE TO CHIE
STORE (NMONEE-CNONEE)^2/CNONEE TO CHINE
STORE (MONEF-CONEF)^2/CONEF TO CHIF
STORE (NMONEF-CNONEF)^2/CNONEF TO CHINF
STORE (MONEG-CONEG)^2/CONEG TO CHIG
STORE (NMONEG-CNONEG)^2/CNONEG TO CHING
STORE (MONEH-CONEH)^2/CONEH TO CHIH
STORE (NMONEH-CNONEH)^2/CNONEH TO CHINH
STORE
CHIA+CHINA+CHIB+CHINB+CHIC+CHINC+CHID+CHIND+CHIE+CHINE+CHIF+CHINF+C
HIG+CHING+CHIH+CHINH TO CHISQ
set print on
? ' CHI SQUARE IS :  ',CHISQ*1.0000
? ' d.f.= 7, sig at .05 is 14.1'
?
RELEASE ALL EXCEPT IND*

SET PRINT OFF
* DEVELOPERS AND TYPE OF DEVELOPMENT-BUILDING,LAND,BOTH
COUNT FOR &IND .AND.TWO='a' to mtwoa
count for &IND .AND.two='b' to mtwob
count for &IND .AND.two='c' to mtwoc
COUNT FOR.NOT.&IND .AND.TWO='a' to nmtwoa
count for.NOT.&IND .AND.two='b' to nmtwob
count for.NOT.&IND .AND.two='c' to nmtwoc
count for two='a'.or.'b'$two.or.'c'$two to total

SET PRINT ON
?
? '           RESULTS FOR QUESTION TWO'
?
? "TYPE OF DEVEL- NO. OF DEV. &INDR    NOT &INDR         TOTAL"
?
? 'BUILDING      ',MTWOA,NMTWOA,MTWOA+NMTWOA
? 'LAND          ',MTWOB,NMTWOB,MTWOB+NMTWOB
? 'BOTH          ',MTWOC,NMTWOC,MTWOC+NMTWOC
?
? ' Number of respondents to question 2 = ',total
? ' Percent responding to question 2    = ',TOTAL/INDP*100
?
set PRINT OFF
STORE MTWOA+NMTWOA TO ROWA
STORE MTWOB+NMTWOB TO ROWB
STORE MTWOC+NMTWOC TO ROWC
STORE MTWOA+MTWOB+MTWOC TO COLIND
STORE NMTWOA+NMTWOB+NMTWOC TO COLNIND
STORE COLIND+COLNIND TO SAMP
STORE (ROWA*COLIND)/SAMP TO CONEA
STORE (ROWA*COLNIND)/SAMP TO CNONEA
STORE (ROWB*COLIND)/SAMP TO CONEB
STORE (ROWB*COLNIND)/SAMP TO CNONEB
STORE (ROWC*COLIND)/SAMP TO CONEC
STORE (ROWC*COLNIND)/SAMP TO CNONEC
STORE (MTWOA-CONEA)^2/CONEA TO CHIA
STORE (NMTWOA-CNONEA)^2/CNONEA TO CHINA
STORE (MTWOB-CONEB)^2/CONEB TO CHIB
STORE (NMTWOB-CNONEB)^2/CNONEB TO CHINB
STORE (MTWOC-CONEC)^2/CONEC TO CHIC
STORE (NMTWOC-CNONEC)^2/CNONEC TO CHINC
STORE CHIA+CHIB+CHIC+CHINA+CHINB+CHINC TO CHISQ
SET PRINT ON
? 'CHI SQUARE EQUALS :  ',CHISQ*1.0000000
? ' d.f. = 2, significant at .05 level > 6.0'

SET PRINT OFF
RELEASE ALL EXCEPT IND*
set talk on
*DEVELOPERS AND SPECIFIC TYPE OF DEVELOPMENT (QUESTION 3)
COUNT FOR &IND .AND.'a'$three to monea
COUNT FOR &IND .AND.'b'$three to moneb
COUNT FOR &IND .AND.'c'$three to monec
COUNT FOR &IND .AND.'d'$three to moned
COUNT FOR &IND .AND.'e'$three to monee
COUNT FOR &IND .AND.'f'$three to monef
COUNT FOR &IND .AND.'g'$three to moneg
COUNT FOR.NOT.&IND .AND.'a'$three to nmonea
COUNT FOR.NOT.&IND .AND.'b'$three to nmoneb
COUNT FOR.NOT.&IND .AND.'c'$three to nmonec
COUNT FOR.NOT.&IND .AND.'d'$three to nmoned
COUNT FOR.NOT.&IND .AND.'e'$three to nmonee
COUNT FOR.NOT.&IND .AND.'f'$three to nmonef
COUNT FOR.NOT.&IND .AND.'g'$three to nmoneg
count for &IND .AND.NO_DEV=1 TO NREG1
COUNT FOR &IND .AND.NO_DEV=2 TO NREG2
COUNT FOR &IND .AND.NO_DEV=3 TO NREG3
COUNT FOR &IND .AND.NO_DEV=4 TO NREG4
COUNT FOR &IND .AND.NO_DEV=5 TO NREG5
COUNT FOR &IND .AND.NO_DEV>5 TO NREGX
count for.NOT.&IND .AND.NO_DEV=1 TO NNREG1
COUNT FOR.NOT.&IND .AND.NO_DEV=2 TO NNREG2
COUNT FOR.NOT.&IND .AND.NO_DEV=3 TO NNREG3
COUNT FOR.NOT.&IND .AND.NO_DEV=4 TO NNREG4
COUNT FOR.NOT.&IND .AND.NO_DEV=S TO NNREG5
COUNT FOR.NOT.&IND .AND.NO_DEV>S TO NNREGX
```

```
count for three='a'.or.'b'$three.or.'c'$three.or.'d'$three.or.'e'$three.or.'f'$three;
.or.'g'$three to total

SET PRINT ON
? '           RESULTS FOR QUESTION THREE'
?
? "SPEC.DEV TYPE- NO. OF DEV. &INDR     NOT &INDR       TOTAL"
?
? 'COMMERCIAL          = ',MONEA,NMONEA,MONEA+NMONEA
? 'INDUSTRIAL         = ',MONEB,NMONEB,MONEB+NMONEB
? 'RESIDENTIAL        = ',MONEC,NMONEC,MONEC+NMONEC
? 'OFFICE            = ',MONED,NMONED,MONED+NMONED
? 'RESORT/REC          = ',MONEE,NMONEE,MONEE+NMONEE
? 'SHOPPING CENTER    = ',MONEF,NMONEF,MONEF+NMONEF
? 'OTHER              = ',MONEG,NMONEG,MONEG+NMONEG

?
?
?
?
?
?
?
?
? 'ONE TYPE           = ',NREG1,NNREG1,NREG1+NNREG1
? 'TWO               = ',NREG2,NNREG2,NREG2+NNREG2
? 'THREE             = ',NREG3,NNREG3,NREG3+NNREG3
? 'FOUR              = ',NREG4,NNREG4,NREG4+NNREG4
? 'FIVE             = ',NREGS,NNREGS,NREGS+NNREG5
? 'MORE THAN 5        = ',NREGX,NNREGX,NREGX+NNREGX
?
? 'Total number of respondents to question 3 =',total
? ' Percent responding to question 3     = ',TOTAL/INDP*100

set print off
*chi square routine
STORE MONEA+NMONEA TO ROWA
STORE MONEB+NMONEB TO ROWB
STORE MONEC+NMONEC TO ROWC
STORE MONED+NMONED TO ROWD
STORE MONEE+NMONEE TO ROWE
STORE MONEF+NMONEF TO ROWF
STORE MONEG+NMONEG TO ROWG

STORE ROWA+ROWB+ROWC+ROWD+ROWE+ROWF+ROWG TO SAMP
STORE MONEA+MONEB+MONEC+MONED+MONEE+MONEF+MONEG TO COLIND
STORE NMONEA+NMONEB+NMONEC+NMONED+NMONEE+NMONEF+NMONEG TO
COLNIND
STORE (ROWA*COLIND)/SAMP TO CONEA
STORE (ROWA*COLNIND)/SAMP TO CNONEA
STORE (ROWB*COLIND)/SAMP TO CONEB
STORE (ROWB*COLNIND)/SAMP TO CNONEB
STORE (ROWC*COLIND)/SAMP TO CONEC
STORE (ROWC*COLNIND)/SAMP TO CNONEC
STORE (ROWD*COLIND)/SAMP TO CONED
STORE (ROWD*COLNIND)/SAMP TO CNONED
STORE (ROWE*COLIND)/SAMP TO CONEE
STORE (ROWE*COLNIND)/SAMP TO CNONEE
STORE (ROWF*COLIND)/SAMP TO CONEF
STORE (ROWF*COLNIND)/SAMP TO CNONEF
STORE (ROWG*COLIND)/SAMP TO CONEG
STORE (ROWG*COLNIND)/SAMP TO CNONEG

STORE (MONEA-CONEA)^2/CONEA TO CHIA
STORE (NMONEA-CNONEA)^2/CNONEA TO CHINA
STORE (MONEB-CONEB)^2/CONEB TO CHIB
STORE (NMONEB-CNONEB)^2/CNONEB TO CHINB
STORE (MONEC-CONEC)^2/CONEC TO CHIC
STORE (NMONEC-CNONEC)^2/CNONEC TO CHINC
STORE (MONED-CONED)^2/CONED TO CHID
STORE (NMONED-CNONED)^2/CNONED TO CHIND
STORE (MONEE-CONEE)^2/CONEE TO CHIE
STORE (NMONEE-CNONEE)^2/CNONEE TO CHINE
STORE (MONEF-CONEF)^2/CONEF TO CHIF
STORE (NMONEF-CNONEF)^2/CNONEF TO CHINF
STORE (MONEG-CONEG)^2/CONEG TO CHIG
STORE (NMONEG-CNONEG)^2/CNONEG TO CHING


STORE
CHIA+CHINA+CHIB+CHINB+CHIC+CHINC+CHID+CHIND+CHIE+CHINE+CHIF+CHINF+C
HIG+CHING TO CHISQ
set print on
? ' CHI SQUARE IS :  ',CHISQ*1.0000
? ' d.f.= 6, sig at .05 is >12.6'
?
RELEASE ALL EXCEPT IND*

SET PRINT OFF
*QUESTION 4- DEVELOPERS AND PROFESSIONAL ORGANIZATIONS
COUNT FOR &IND .AND.’a’$four to monea
COUNT FOR &IND .AND.’b’$four to moneb
COUNT FOR &IND .AND.’c’$four to monec
COUNT FOR &IND .AND.’d’$four to moned
COUNT FOR &IND .AND.’e’$four to monee
COUNT FOR &IND .AND.’f’$four to monef
COUNT FOR &IND .AND.’g’$four to moneg
COUNT FOR &IND .AND.’h’$four to moneh
COUNT FOR &IND .AND.’i’$four to monei
COUNT FOR.NOT.&IND .AND.’a’$four to nmonea
COUNT FOR.NOT.&IND .AND.’b’$four to nmoneb
COUNT FOR.NOT.&IND .AND.’c’$four to nmonec
COUNT FOR.NOT.&IND .AND.’d’$four to nmoned
COUNT FOR.NOT.&IND .AND.’e’$four to nmonee
COUNT FOR.NOT.&IND .AND.'f'$four to nmonef
COUNT FOR.NOT.&IND .AND.'g'$four to nmoneg
COUNT FOR.NOT.&IND .AND.'h'$four to nmoneh
COUNT FOR.NOT.&IND .AND.'i'$four to nmonei
count for &IND .AND.NO_ORG=1 TO NREG1
COUNT FOR &IND .AND.NO_ORG=2 TO NREG2
COUNT FOR &IND .AND.NO_ORG=3 TO NREG3
COUNT FOR &IND .AND.NO_ORG=4 TO NREG4
COUNT FOR &IND .AND.NO_ORG=5 TO NREG5
COUNT FOR &IND .AND.NO_ORG>5 TO NREGX
count for.NOT.&IND .AND.NO_ORG=1 TO NNREG1
COUNT FOR.NOT.&IND .AND.NO_ORG=2 TO NNREG2
COUNT FOR.NOT.&IND .AND.NO_ORG=3 TO NNREG3
COUNT FOR.NOT.&IND .AND.NO_ORG=4 TO NNREG4
COUNT FOR.NOT.&IND .AND.NO_ORG=5 TO NNREG5
COUNT FOR.NOT.&IND .AND.NO_ORG>5 TO NNREGX
count for four='a'.or.'b'$four.or.'c'$four.or.'d'$four.or.'e'$four.or.'f'$four;
.or.'g'$four.or.'h'$four.or.'i'$four to total

SET PRINT ON
? '          RESULTS FOR QUESTION FOUR'
?
? "ORGANIZATIONS- NO. OF DEV. &INDR - NOT &INDR   TOTAL"
?
? 'AIA          = ',MONEA,NMONEA,MONEA+NMONEA
? 'APA          = ',MONEB,NMONEB,MONEB+NMONEB
? 'ASCE         = ',MONEC,NMONEC,MONEC+NMONEC
? 'ASLA         = ',MONED,NMONED,MONED+NMONED
? 'ARRDA        = ',MONEE,NMONEE,MONEE+NMONEE
? 'ULI          = ',MONEF,NMONEF,MONEF+NMONEF
? 'NAHB         = ',MONEG,NMONEG,MONEG+NMONEG
? 'NAIOP        = ',MONEH,NMONEH,MONEH+NMONEH
? 'OTHER        = ',MONEI,NMONEI,MONEI+NMONEI

?
? 'ONE ORGANIZATION',NREG1,NNREG1,NREG1+NNREG1
? 'TWO              ',NREG2,NNREG2,NREG2+NNREG2
? 'THREE            ',NREG3,NNREG3,NREG3+NNREG3
? 'FOUR             ',NREG4,NNREG4,NREG4+NNREG4
? 'FIVE             ',NREGS,NNREGS,NREGS+NNREG5
? 'MORE THAN S      ',NREGX,NNREGX,NREGX+NNREGX
?
? 'Total number of respondents to question 4 = ',total
? ' Percent responding to question 4     = ',TOTAL/INDP*100

?
RELEASE ALL EXCEPT IND*

SET PRINT OFF
DO ANALYS2.PRG

*ANALYSIS2- QUESTIONS S-7,13-17
```

```
USE DATA
*question 5 - DEVELOPERS AND YEARS OF EXPERIENCE
COUNT FOR &IND .AND.FIVE='a' to mtwoa
count for &IND .AND.FIVE='b' to mtwob
count for &IND .AND.FIVE='c' to mtwoc
COUNT FOR &IND .AND.FIVE='d' to mtwod
count for &IND .AND.FIVE='e' to mtwoe
count for &IND .AND.FIVE='f' to mtwof
COUNT FOR &IND .AND.FIVE='g' to mtwog
COUNT FOR &IND .AND.FIVE='h' to mtwoh

COUNT FOR.NOT.&IND .AND.FIVE='a' to nmtwoa
count for.NOT.&IND .AND.FIVE='b' to nmtwob
count for.NOT.&IND .AND.FIVE='c' to nmtwoc
COUNT FOR.NOT.&IND .AND.FIVE='d' to nmtwod
count for.NOT.&IND .AND.FIVE='e' to nmtwoe
count for.NOT.&IND .AND.FIVE='f' to nmtwof
COUNT FOR.NOT.&IND .AND.FIVE='g' to nmtwog
count for.NOT.&IND .AND.FIVE='h' to nmtwoh
count for FIVE='a'.or.'b'$FIVE.or.'c'$FIVE.or.'d'$FIVE.or.'e'$FIVE.or.'f'$FIVE.or.'g'$FIVE.or.'h'$FIVE
to total

SET PRINT ON
? '          RESULTS FOR QUESTION FIVE'
?
? "YRS OF EXPERIENCE- NO. DEV. &INDR     NOT &INDR       TOTAL"
?
? '0-10 yrs       ',MTWOA,NMTWOA,MTWOA+NMTWOA
? '11-20 yrs      ',MTWOB,NMTWOB,MTWOB+NMTWOB
? '21-30 yr       ',MTWOC+mtwoe,NMTWOC+nmtwoe,MTWOC+mtwoe+NMTWOC+nmtwoe
? '31-40 ys
',MTWOD+MTWOF,NMTWOD+NMTWOF,MTWOD+MTWOF+NMTWOF+NMTWOD
? '41-50rs        ',MTWOG,NMTWOG,MTWOG+NMTWOG
? 'over 51 yrs    ' ,MTWOH,NMTWOH,MTWOH+NMTWOH
?
? 'Total number of respondents to question 5 = ',total
? ' Percent responding to question 5          = ',TOTAL/INDP*100
?
SET PRINT OFF
RELEASE ALL EXCEPT IND
*QUESTION 6 - SIZE OF FIRM (ACRES)
COUNT FOR &IND .AND.SIX='a' to mtwoa
count for &IND .AND.SIX='b' to mtwob
count for &IND .AND.SIX='c' to mtwoc
COUNT FOR &IND .AND.SIX='d' to mtwod
count for &IND .AND.SIX='e' to mtwoe
count for &IND .AND.SIX='f' to mtwof

COUNT FOR.NOT.&IND .AND.SIX='a' to nmtwoa
count for.NOT.&IND .AND.SIX='b' to nmtwob
count for.NOT.&IND .AND.SIX='c' to nmtwoc
COUNT FOR.NOT.&IND .AND.SIX='d' to nmtwod
```

```
count for.NOT.&IND .AND.SIX='e' to nmtwoe
count for.NOT.&IND .AND.SIX='f' to nmtwof
count for SIX='a'.or.'b'$SIX.or.'c'$SIX.or.'d'$SIX.or.'e'$SIX.or.'f'$SIX  to total

SET PRINT ON
? '          RESULTS FOR QUESTION SIX'
?
? "NO OF ACRES- NO. OF DEV. &INDR      NOT &INDR         TOTAL"
?
? ' 0-30 ACRES    ',MTWOA,NMTWOA,MTWOA+NMTWOA
? ' 30-100 ACRES  ',MTWOB,NMTWOB,MTWOB+NMTWOB
? '101-200 ACRES  ',MTWOC,NMTWOC,MTWOC+NMTWOC
? '201-300 ACRES  ',MTWOD,NMTWOD,MTWOD+NMTWOD
? '301-500 ACRES  ',MTWOE,NMTWOE,MTWOE+NMTWOE
? 'OVER 500 ACRES ',MTWOF,NMTWOF,MTWOF+NMTWOF
?
?
? ' Total number of respondents to question 6  = ',total
? ' Percent responding to question 6           = ',TOTAL/INDP*100

SET PRINT OFF
RELEASE ALL EXCEPT IND*
*QUESTION 7 - SIZE OF FIRM (DOLLAR VOLUME)
COUNT FOR &IND .AND.SEVEN='a' to mtwoa
count for &IND .AND.SEVEN='b' to mtwob
count for &IND .AND.SEVEN='c' to mtwoc
COUNT FOR &IND .AND.SEVEN='d' to mtwod
count for &IND .AND.SEVEN='e' to mtwoe
count for &IND .AND.SEVEN='f' to mtwof
count for &IND .AND.SEVEN='g' to mtwog

COUNT FOR.NOT.&IND .AND.SEVEN='a' to nmtwoa
count for.NOT.&IND .AND.SEVEN='b' to nmtwob
count for.NOT.&IND .AND.SEVEN='c' to nmtwoc
COUNT FOR.NOT.&IND .AND.SEVEN='d' to nmtwod
count for.NOT.&IND .AND.SEVEN='e' to nmtwoe
count for.NOT.&IND .AND.SEVEN='f' to nmtwof
count for.NOT.&IND .AND.SEVEN='g' to nmtwog
count for
SEVEN='a'.or.'b'$SEVEN.or.'c'$SEVEN.or.'d'$SEVEN.or.'e'$SEVEN.or.'f'$SEVEN.or.'g'$SEVEN to
total
?
?
SET PRINT ON
? '          RESULTS FOR QUESTION SEVEN'
?
? "DOLLAR VOLUME- NO. OF DEV. &INDR      NOT &INDR         TOTAL"
?
? '$0-100,000      ',MTWOA,NMTWOA,MTWOA+NMTWOA
? '$100-250,000    ',MTWOB,NMTWOB,MTWOB+NMTWOB
? '$250-500,000    ',MTWOC,NMTWOC,MTWOC+NMTWOC
? '$500-1 MILLION ',MTWOD,NMTWOD,MTWOD+NMTWOD
? '$1 - 2 MILLION ',MTWOE,NMTWOE,MTWOE+NMTWOE
? '$2 - 5 MILLION ',MTWOF,NMTWOF,MTWOF+NMTWOF
? 'OVER $5 MILLION',MTWOG,NMTWOG,MTWOG+NMTWOG
?
? ' Total number of respondents to question 7  = ',total
? ' Percent responding to question 7           = ',TOTAL/INDP*100

?
SET PRINT OFF
RELEASE ALL EXCEPT IND*

*QUESTION 13- DEVELOPERS AND STAGE OF USING LA'S IN DEVELOPMENT

COUNT FOR &IND .AND.THIRTEEN='a' to mtwoa
count for &IND .AND.THIRTEEN='b' to mtwob
count for &IND .AND.THIRTEEN='c' to mtwoc
COUNT FOR &IND .AND.THIRTEEN='d' to mtwod

COUNT FOR.NOT.&IND .AND.THIRTEEN='a' to nmtwoa
count for.NOT.&IND .AND.THIRTEEN='b' to nmtwob
count for.NOT.&IND .AND.THIRTEEN='c' to nmtwoc
COUNT FOR.NOT.&IND .AND.THIRTEEN='d' to nmtwod
count for thirteen='a'.or.'b'$thirteen.or.'c'$thirteen to total

SET PRINT ON
? '          RESULTS FOR QUESTION THIRTEEN'
?
? "STAGE OF DEVEL.- NO. DEV. &INDR      NOT &INDR         TOTAL"
?
? 'EARLY              ' ,MTWOA,NMTWOA,MTWOA+NMTWOA
? 'MIDDLE             ',MTWOB,NMTWOB,MTWOB+NMTWOB
? 'LATE              ',MTWOC,NMTWOC,MTWOC+NMTWOC
?
? ' Total number of respondents to question 13  = ',total
? ' Percent responding to question 13           = ',TOTAL/INDP*100

SET PRINT OFF
release all except IND*
*Question 14 - Employment of LA's in firm

COUNT FOR &IND .AND. FOURTEEN ='T' TO MTWOA
COUNT FOR .NOT. &IND .AND. FOURTEEN ='T' TO NMTWOC
COUNT FOR &IND .AND.FOURTEEN ='F' TO MTWOD
COUNT FOR .NOT. &IND .AND. FOURTEEN='F' TO NMTWOB
COUNT FOR FOURTEEN ='T' .OR. FOURTEEN ='F' TO TOTAL

SET PRINT ON
?'          RESULTS FOR QUESTION FOURTEEN'
?
?"LA'S IN FIRM -    NO. DEV. &INDR       NOT &INDR          TOTAL"
?
?'YES              ',MTWOA,NMTWOC,MTWOA+NMTWOC
```

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?'NO                    ',MTWOD,NMTWOB,NMTWOB+MTWOD
?
?'TOTAL NUMBER OF RESPONDENTS TO QUESTION 14 = ',TOTAL
?
? ' Percent responding to question 14          = ',TOTAL/INDP*100

?
SET PRINT OFF
RELEASE ALL EXCEPT IND*
*QUESTION 15- RETAIN LA IN SUPERVISORY CAPACITY

COUNT FOR &IND .AND.FIFTEEN=1 to mtwoa
COUNT FOR &IND .AND.FIFTEEN=2 to mtwob
count for &IND .AND.FIFTEEN=3 to mtwoc
count for &IND .AND.FIFTEEN=4 to mtwod
COUNT FOR &IND .AND.FIFTEEN=5 to mtwoe

COUNT FOR.NOT.&IND .AND.FIFTEEN=1 to nmtwoa
COUNT FOR.NOT.&IND .AND.FIFTEEN=2 to nmtwob
count for.NOT.&IND .AND.FIFTEEN=3 to nmtwoc
count for.NOT.&IND .AND.FIFTEEN=4 to nmtwod
COUNT FOR.NOT.&IND .AND.FIFTEEN=5 to nmtwoe
COUNT FOR FIFTEEN=1.OR.FIFTEEN=2.OR.FIFTEEN=3.OR.FIFTEEN=4.OR.FIFTEEN=5 TO
total
SET PRINT ON
? '          RESULTS FOR QUESTION FIFTEEN'
?
? "RETAIN LA'S IN SUP.CAP -NO. DEV. &INDR      NOT &INDR        TOTAL"
?
? 'NEVER                ' ,MTWOA,NMTWOA,MTWOA+NMTWOA
? 'ALMOST NEVER          ',MTWOB,NMTWOB,MTWOB+NMTWOB
? 'SOMETIMES             ',MTWOC,NMTWOC,MTWOC+NMTWOC
? 'ALMOST ALWAYS         ',MTWOD,NMTWOD,MTWOD+NMTWOD
? 'ALWAYS                ',MTWOE,NMTWOE,MTWOE+NMTWOE
? ' Total number of respondents to question 15   = ',total
? ' Percent responding to question 15      = ',TOTAL/INDP*100

?
SET PRINT OFF
RELEASE ALL EXCEPT IND*

*QUESTION 16-RATING OF SERVICES OF LA
COUNT FOR &IND .AND.SIXTEEN=1 to mtwoa
COUNT FOR &IND .AND.SIXTEEN=2 to mtwob
count for &IND .AND.SIXTEEN=3 to mtwoc
count for &IND .AND.SIXTEEN=4 to mtwod
COUNT FOR &IND .AND.SIXTEEN=5 to mtwoe

COUNT FOR.NOT.&IND .AND.SIXTEEN=1 to nmtwoa
COUNT FOR.NOT.&IND .AND.SIXTEEN=2 to nmtwob
count for.NOT.&IND .AND.SIXTEEN=3 to nmtwoc
count for.NOT.&IND .AND.SIXTEEN=4 to nmtwod
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COUNT FOR.NOT.&IND .AND.SIXTEEN=5 to nmtwoe
COUNT FOR SIXTEEN=1.OR.SIXTEEN=2.OR.SIXTEEN=3.OR.SIXTEEN=4.OR.SIXTEEN=5 TO
total



SET PRINT ON
? '          RESULTS FOR QUESTION SIXTEEN'
?
?
? "RATING OF LA'S     - NO. DEV. &INDR     NOT &INDR     TOTAL"
?
? 'INFERIOR            ' ,MTWOA,NMTWOA,MTWOA+NMTWOA
? 'FAIR               ',MTWOB,NMTWOB,MTWOB+NMTWOB
? 'GOOD               ',MTWOC,NMTWOC,MTWOC+NMTWOC
? 'EXCELLENT          ',MTWOD,NMTWOD,MTWOD+NMTWOD
? 'NO BASIS FOR JUDGE. ',MTWOE,NMTWOE,MTWOE+NMTWOE
?
? ' Total number of respondents to question 16  = ',total
? ' Percent responding to question 16           = ',TOTAL/INDP*100
?
SET PRINT OFF
RELEASE ALL EXCEPT IND*

*QUESTION 17- ESTIMATED VALUE OF LA SERVICES
COUNT FOR &IND .AND.SEVENTEEN=1 to mtwoa
COUNT FOR &IND .AND.SEVENTEEN=2 to mtwob
count for &IND .AND.SEVENTEEN=3 to mtwoc
count for &IND .AND.SEVENTEEN=4 to mtwod
COUNT FOR &IND .AND.SEVENTEEN=5 to mtwoe

COUNT FOR.NOT.&IND .AND.SEVENTEEN=1 to nmtwoa
COUNT FOR.NOT.&IND .AND.SEVENTEEN=2 to nmtwob
count for.NOT.&IND .AND.SEVENTEEN=3 to nmtwoc
count for.NOT.&IND .AND.SEVENTEEN=4 to nmtwod
COUNT FOR.NOT.&IND .AND.SEVENTEEN=5 to nmtwoe
COUNT FOR
SEVENTEEN=1.OR.SEVENTEEN=2.OR.SEVENTEEN=3.OR.SEVENTEEN=4.OR.SEVENTEEN=5
TO total
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?
SET PRINT ON
? '          RESULTS FOR QUESTION SEVENTEEN'
?
? "VALUE OF LA SERVICES - NO. DEV. &INDR   NOT &INDR   TOTAL"
?
? 'OF NO VALUE          ' ,MTWOA,NMTWOA,MTWOA+NMTWOA
? 'MINIMAL VALUE        ',MTWOB,NMTWOB,MTWOB+NMTWOB
? 'MODERATE VALUE       ',MTWOC,NMTWOC,MTWOC+NMTWOC
? 'CONSIDERABLE VALUE  ',MTWOD,NMTWOD,MTWOD+NMTWOD
? 'MAJOR VALUE          ',MTWOE,NMTWOE,MTWOE+NMTWOE
?
? ' Total number of respondents to question 17  = ',total
? ' Percent responding to question 17           = ',TOTAL/INDP*100

?
SET PRINT OFF
RELEASE ALL EXCEPT IND*
DO ANALYS3.PRG
USE DATA
*HAVE HIRED LA'S FOR THESE SERVICES
COUNT FOR &IND .AND.'a'$A TO MEM1
COUNT FOR &IND .AND.'a'$B TO MEM2
COUNT FOR &IND .AND.'a'$C TO MEM3
COUNT FOR &IND .AND.'a'$D TO MEM4
COUNT FOR &IND .AND.'a'$E TO MEM5
COUNT FOR &IND .AND.'a'$F TO MEM6
COUNT FOR &IND .AND.'a'$G TO MEM7
COUNT FOR &IND .AND.'a'$H TO MEM8
COUNT FOR &IND .AND.'a'$I TO MEM9
COUNT FOR &IND .AND.'a'$J TO MEM10
COUNT FOR &IND .AND.'a'$K TO MEM11
COUNT FOR &IND .AND.'a'$L TO MEM12
COUNT FOR &IND .AND.'a'$M TO MEM13
COUNT FOR &IND .AND.'a'$N TO MEM14
COUNT FOR &IND .AND.'a'$O TO MEM15
COUNT FOR &IND .AND.'a'$P TO MEM16
COUNT FOR &IND .AND.'a'$Q TO MEM17
COUNT FOR &IND .AND.'a'$R TO MEM18
COUNT FOR &IND .AND.'a'$S TO MEM19
COUNT FOR &IND .AND.'a'$T TO MEM20
COUNT FOR &IND .AND.'a'$U TO MEM21
COUNT FOR &IND .AND.'a'$V TO MEM22
COUNT FOR &IND .AND.'a'$W TO MEM23
COUNT FOR &IND .AND.'a'$X TO MEM24
COUNT FOR &IND .AND.'a'$Y TO MEM2S
COUNT FOR &IND .AND.'a'$Z TO MEM26
COUNT FOR &IND .AND.'a'$AA TO MEM27
COUNT FOR &IND .AND.'a'$AB TO MEM28
COUNT FOR &IND .AND.'a'$AC TO MEM29
COUNT FOR &IND .AND.'a'$AD TO MEM30
COUNT FOR &IND .AND.'a'$AE TO MEM31
COUNT FOR &IND .AND.'a'$AF TO MEM32
COUNT FOR &IND .AND.'a'$AG TO MEM33
COUNT FOR &IND .AND.'a'$AH TO MEM34
COUNT FOR &IND .AND.'a'$AI TO MEM3S
COUNT FOR &IND .AND.'a'$AJ TO MEM36
COUNT FOR &IND .AND.EIGHT='Y' TO NOSE
COUNT FOR &IND TO NOSE1
SET PRINT ON
? '          RESULTS FOR QUESTION NINE'
?
? 'Developers hired LAs to provide the following services    NO.'
?
? 'Total number of respondents answering &INDR and Hired =',nose
? 'Total number of respondents answering &INDR =',nose1
?
? 'DESIGN DEVELOPMENT/SITE PLANNING............ ',MEM1
? 'AGENCY CONSULT/REVIEW APPR/ZONING ASSIS..... ',MEM2
? 'PROJECT FINANCING/PROJECT BUDGETING......... ',MEM3
? 'SITE ANALYSIS.............................. ',MEM4
? 'EROSION CONTROL............................ ',MEMS
?
? 'STORM DRAINAGE............................. ',MEM6
? 'ENVIRONMENTAL STUDIES...................... ',MEM7
? 'FINANCIAL ANALYSIS......................... ',MEM8
? 'PROJECT DEVELOPMENTAL SCHEDULING............ ',MEM9
? 'MARKETING/FEASIBILITY STUDIES............... ',MEM10
?
? 'POST CONSTRUCTION/EVALUATION................ ',MEM11
? 'SCHEMATIC/PRELIMINARY LAND PLANNING......... ',MEM12
? 'PRE-DESIGN................................. ',MEM13
? 'SITE SELECTION............................. ',MEM14
? 'PLANTING PLANS............................. ',MEM1S
?
? 'MASTER PLANNING............................  ',MEM16
? 'PRELIMINARY CONSTRUC COST ESTIMATING.......  ',MEM17
? 'IRRIGATION................................  ',MEM18
? 'FEASIBILITY STUDIES........................  ',MEM19
? 'PRESENTATION GRAPHICS/PUBLIC PRESENTATIONS.. ',MEM20
?
? 'DESIGN TEAM COORDINATION.................... ',MEM21
? 'CONSTRUCTION DOCUMENTS...................... ',MEM22
? 'SITE LAYOUT................................. ',MEM23
? 'PROGRAM DEVELOPMENT......................... ',MEM24
? 'LIGHTING DESIGN............................. ',MEM25
?
? 'BIDDING (NEGOTIATIONS)...................... ',MEM26
? 'PROJECT ADMINISTRATION...................... ',MEM27
? 'DETAILS,MATERIALS AND SPECIFICATIONS........ ',MEM28
? 'ROAD ALIGNMENT AND PROFILES................. ',MEM29
? 'LIFE CYCLE/VALUE ANALYSIS................... ',MEM30
?
? 'GRADING AND DRAINAGE DETAILS................ ',MEM31
? 'SEWER COLLECTION............................ ',MEM32
? 'WATER DISTRIBUTION.......................... ',MEM33
? 'CONSTRUCTION ADMINISTRATION................. ',MEM34
? 'MAINTENANCE REVIEWS AND SCHEDULING.......... ',MEM35
? 'OTHER....................................... ',MEM36
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?
SET PRINT OFF
RELEASE ALL EXCEPT IND*

*LA SERVICES PERCEIVED BY DEVELOPERS
COUNT FOR &IND .AND.'b'$A TO MEM1
COUNT FOR &IND .AND.'b'$B TO MEM2
COUNT FOR &IND .AND.'b'$C TO MEM3
COUNT FOR &IND .AND.'b'$D TO MEM4
COUNT FOR &IND .AND.'b'$E TO MEM5
COUNT FOR &IND .AND.'b'$F TO MEM6
COUNT FOR &IND .AND.'b'$G TO MEM7
COUNT FOR &IND .AND.'b'$H TO MEM8
COUNT FOR &IND .AND.'b'$I TO MEM9
COUNT FOR &IND .AND.'b'$J TO MEM10
COUNT FOR &IND .AND.'b'$K TO MEM11
COUNT FOR &IND .AND.'b'$L TO MEM12
COUNT FOR &IND .AND.'b'$M TO MEM13
COUNT FOR &IND .AND.’b’$N TO MEM14
COUNT FOR &IND .AND.’b’$O TO MEM15
COUNT FOR &IND .AND.’b’$P TO MEM16
COUNT FOR &IND .AND.’b’$Q TO MEM17
COUNT FOR &IND .AND.’b’$R TO MEM18
COUNT FOR &IND .AND.’b’$S TO MEM19
COUNT FOR &IND .AND.’b’$T TO MEM20
COUNT FOR &IND .AND.’b’$U TO MEM21
COUNT FOR &IND .AND.’b’$V TO MEM22
COUNT FOR &IND .AND.’b’$W TO MEM23
COUNT FOR &IND .AND.’b’$X TO MEM24
COUNT FOR &IND .AND.’b’$Y TO MEM25
COUNT FOR &IND .AND.’b’$Z TO MEM26
COUNT FOR &IND .AND.’b’$AA TO MEM27
COUNT FOR &IND .AND.’b’$AB TO MEM28
COUNT FOR &IND .AND.’b’$AC TO MEM29
COUNT FOR &IND .AND.’b’$AD TO MEM30
COUNT FOR &IND .AND.’b’$AE TO MEM31
COUNT FOR &IND .AND.’b’$AF TO MEM32
COUNT FOR &IND .AND.’b’$AG TO MEM33
COUNT FOR &IND .AND.’b’$AH TO MEM34
COUNT FOR &IND .AND.’b’$AI TO MEM35
COUNT FOR &IND .AND.’b’$AJ TO MEM36

COUNT FOR.NOT.&IND .AND.’b’$A TO NMEM1
COUNT FOR.NOT.&IND .AND.’b’$B TO NMEM2
COUNT FOR.NOT.&IND .AND.’b’$C TO NMEM3
COUNT FOR.NOT.&IND .AND.’b’$D TO NMEM4
COUNT FOR.NOT.&IND .AND.’b’$E TO NMEM5
COUNT FOR.NOT.&IND .AND.’b’$F TO NMEM6
COUNT FOR.NOT.&IND .AND.’b’$G TO NMEM7
COUNT FOR.NOT.&IND .AND.’b’$H TO NMEM8
COUNT FOR.NOT.&IND .AND.’b’$I TO NMEM9
COUNT FOR.NOT.&IND .AND.’b’$J TO NMEM10
COUNT FOR.NOT.&IND .AND.’b’$K TO NMEM11
COUNT FOR.NOT.&IND .AND.’b’$L TO NMEM12
COUNT FOR.NOT.&IND .AND.’b’$M TO NMEM13
COUNT FOR.NOT.&IND .AND.’b’$N TO NMEM14
COUNT FOR.NOT.&IND .AND.’b’$O TO NMEM15
COUNT FOR.NOT.&IND .AND.’b’$P TO NMEM16
COUNT FOR.NOT.&IND .AND.’b’$Q TO NMEM17
COUNT FOR.NOT.&IND .AND.’b’$R TO NMEM18
COUNT FOR.NOT.&IND .AND.’b’$S TO NMEM19
COUNT FOR.NOT.&IND .AND.’b’$T TO NMEM20
COUNT FOR.NOT.&IND .AND.’b’$U TO NMEM21
COUNT FOR.NOT.&IND .AND.’b’$V TO NMEM22
COUNT FOR.NOT.&IND .AND.’b’$W TO NMEM23
COUNT FOR.NOT.&IND .AND.’b’$X TO NMEM24
COUNT FOR.NOT.&IND .AND.’b’$Y TO NMEM25
COUNT FOR.NOT.&IND .AND.’b’$Z TO NMEM26
COUNT FOR.NOT.&IND .AND.’b’$AA TO NMEM27
COUNT FOR.NOT.&IND .AND.’b’$AB TO NMEM28
COUNT FOR.NOT.&IND .AND.'b'$AC TO NMEM29
COUNT FOR.NOT.&IND .AND.'b'$AD TO NMEM30
COUNT FOR.NOT.&IND .AND.'b'$AE TO NMEM31
COUNT FOR.NOT.&IND .AND.'b'$AF TO NMEM32
COUNT FOR.NOT.&IND .AND.'b'$AG TO NMEM33
COUNT FOR.NOT.&IND .AND.'b'$AH TO NMEM34
COUNT FOR.NOT.&IND .AND.'b'$AI TO NMEM35
COUNT FOR.NOT.&IND .AND.'b'$AJ TO NMEM36
COUNT FOR &IND TO NOSE2


SET PRINT ON
? '          RESULTS FOR QUESTION TEN'
?
? 'Total number of respondents answering &INDR =',nose2
? ' Developers perceive that LAs perform          &INDR       NOT &INDR       TOTAL'

?
? 'DESIGN DEVELOPMENT/SITE PLANNING............ ',MEM1,NMEM1,MEM1+NMEM1
? 'AGENCY CONSULT/REVIEW APPR/ZONING ASSIS..... ',MEM2,NMEM2,MEM2+NMEM2
? 'PROJECT FINANCING/PROJECT BUDGETING......... ',MEM3,NMEM3,MEM3+NMEM3
? 'SITE ANALYSIS.............................. ',MEM4,NMEM4,MEM4+NMEM4
? 'EROSION CONTROL............................ ',MEM5,NMEM5,MEM5+NMEM5
?
? 'STORM DRAINAGE............................. ',MEM6,NMEM6,MEM6+NMEM6
? 'ENVIRONMENTAL STUDIES...................... ',MEM7,NMEM7,MEM7+NMEM7
? 'FINANCIAL ANALYSIS......................... ',MEM8,NMEM8,MEM8+NMEM8
? 'PROJECT DEVELOPMENTAL SCHEDULING............ ',MEM9,NMEM9,MEM9+NMEM9
? 'MARKETING/FEASIBILITY STUDIES.............. ',MEM10,NMEM10,MEM10+NMEM10
?
? 'POST CONSTRUCTION/EVALUATION................ ',MEM11,NMEM11,MEM11+NMEM11
? 'SCHEMATIC/PRELIMINARY LAND PLANNING......... ',MEM12,NMEM12,MEM12+NMEM12
? 'PRE-DESIGN................................. ',MEM13,NMEM13,MEM13+NMEM13
? 'SITE SELECTION............................. ',MEM14,NMEM14,MEM14+NMEM14
? 'PLANTING PLANS............................. ',MEM15,NMEM15,MEM15+NMEM15
?
? 'MASTER PLANNING........................... ',MEM16,NMEM16,MEM16+NMEM16
? 'PRELIMINARY CONSTRUC COST ESTIMATING....... ',MEM17,NMEM17,MEM17+NMEM17
? 'IRRIGATION................................ ',MEM18,NMEM18,MEM18+NMEM18
? 'FEASIBILITY STUDIES....................... ',MEM19,NMEM19,MEM19+NMEM19
? 'PRESENTATION GRAPHICS/PUBLIC PRESENTATIONS.. ',MEM20,NMEM20,MEM20+NMEM20

?
? 'DESIGN TEAM COORDINATION................... ',MEM21,NMEM21,MEM21+NMEM21
? 'CONSTRUCTION DOCUMENTS..................... ',MEM22,NMEM22,MEM22+NMEM22
? 'SITE LAYOUT................................ ',MEM23,NMEM23,MEM23+NMEM23
? 'PROGRAM DEVELOPMENT........................ ',MEM24,NMEM24,MEM24+NMEM24
? 'LIGHTING DESIGN............................ ',MEM25,NMEM25,MEM25+NMEM25
?
? 'BIDDING (NEGOTIATIONS)..................... ',MEM26,NMEM26,MEM26+NMEM26
? 'PROJECT ADMINISTRATION..................... ',MEM27,NMEM27,MEM27+NMEM27
? 'DETAILS,MATERIALS AND SPECIFICATIONS........ ',MEM28,NMEM28,MEM28+NMEM28
? 'ROAD ALIGNMENT AND PROFILES................. ',MEM29,NMEM29,MEM29+NMEM29
? 'LIFE CYCLE/VALUE ANALYSIS.................. ',MEM30,NMEM30,MEM30+NMEM30
?
? 'GRADING AND DRAINAGE DETAILS............... ',MEM31,NMEM31,MEM31+NMEM31
? 'SEWER COLLECTION........................... ',MEM32,NMEM32,MEM32+NMEM32
? 'WATER DISTRIBUTION......................... ',MEM33,NMEM33,MEM33+NMEM33
? 'CONSTRUCTION ADMINISTRATION................ ',MEM34,NMEM34,MEM34+NMEM34
? 'MAINTENANCE REVIEWS AND SCHEDULING.......... ',MEM3S,NMEM3S,MEM3S+NMEM35
? 'OTHER...................................... ',MEM36,NMEM36,MEM36+NMEM36
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?
SET PRINT OFF
RELEASE ALL EXCEPT IND
*LA SERVICES THAT SHOULD BE PROVIDED
COUNT FOR &IND .AND.'c'$A TO MEM1
COUNT FOR &IND .AND.'c'$B TO MEM2
COUNT FOR &IND .AND.'c'$C TO MEM3
COUNT FOR &IND .AND.'c'$D TO MEM4
COUNT FOR &IND .AND.'c'$E TO MEM5
COUNT FOR &IND .AND.'c'$F TO MEM6
COUNT FOR &IND .AND.'c'$G TO MEM7
COUNT FOR &IND .AND.'c'$H TO MEM8
COUNT FOR &IND .AND.'c'$I TO MEM9
COUNT FOR &IND .AND.'c'$J TO MEM10
COUNT FOR &IND .AND.'c'$K TO MEM11
COUNT FOR &IND .AND.'c'$L TO MEM12
COUNT FOR &IND .AND.'c'$M TO MEM13
COUNT FOR &IND .AND.'c'$N TO MEM14
COUNT FOR &IND .AND.'c'$O TO MEM15
COUNT FOR &IND .AND.'c'$P TO MEM16
COUNT FOR &IND .AND.'c'$Q TO MEM17
COUNT FOR &IND .AND.'c'$R TO MEM18
COUNT FOR &IND .AND.'c'$S TO MEM19
COUNT FOR &IND .AND.'c'$T TO MEM20
COUNT FOR &IND .AND.'c'$U TO MEM21
COUNT FOR &IND .AND.'c'$V TO MEM22
COUNT FOR &IND .AND.'c'$W TO MEM23
COUNT FOR &IND .AND.'c'$X TO MEM24
COUNT FOR &IND .AND.'c'$Y TO MEM25
COUNT FOR &IND .AND.'c'$Z TO MEM26
COUNT FOR &IND .AND.'c'$AA TO MEM27
COUNT FOR &IND .AND.'c'$AB TO MEM28
COUNT FOR &IND .AND.'c'$AC TO MEM29
COUNT FOR &IND .AND.'c'$AD TO MEM30
COUNT FOR &IND .AND.'c'$AE TO MEM31
COUNT FOR &IND .AND.'c'$AF TO MEM32
COUNT FOR &IND .AND.'c'$AG TO MEM33
COUNT FOR &IND .AND.'c'$AH TO MEM34
COUNT FOR &IND .AND.'c'$AI TO MEM35
COUNT FOR &IND .AND.'c'$AJ TO MEM36

COUNT FOR.NOT.&IND .AND.'c'$A TO NMEM1
COUNT FOR.NOT.&IND .AND.'c'$B TO NMEM2
COUNT FOR.NOT.&IND .AND.'c'$C TO NMEM3
COUNT FOR.NOT.&IND .AND.'c'$D TO NMEM4
COUNT FOR.NOT.&IND .AND.'c'$E TO NMEM5
COUNT FOR.NOT.&IND .AND.'c'$F TO NMEM6
COUNT FOR.NOT.&IND .AND.'c'$G TO NMEM7
COUNT FOR.NOT.&IND .AND.'c'$H TO NMEM8
COUNT FOR.NOT.&IND .AND.'c'$I TO NMEM9
COUNT FOR.NOT.&IND .AND.'c'$J TO NMEM10
COUNT FOR.NOT.&IND .AND.'c'$K TO NMEM11
COUNT FOR.NOT.&IND .AND.'c'$L TO NMEM12
COUNT FOR.NOT.&IND .AND.'c'$M TO NMEM13
COUNT FOR.NOT.&IND .AND.'c'$N TO NMEM14
COUNT FOR.NOT.&IND .AND.'c'$O TO NMEM15
COUNT FOR.NOT.&IND .AND.'c'$P TO NMEM16
COUNT FOR.NOT.&IND .AND.'c'$Q TO NMEM17
COUNT FOR.NOT.&IND .AND.'c'$R TO NMEM18
COUNT FOR.NOT.&IND .AND.'c'$S TO NMEM19
COUNT FOR.NOT.&IND .AND.'c'$T TO NMEM20
COUNT FOR.NOT.&IND .AND.'c'$U TO NMEM21
COUNT FOR.NOT.&IND .AND.'c'$V TO NMEM22
COUNT FOR.NOT.&IND .AND.'c'$W TO NMEM23
COUNT FOR.NOT.&IND .AND.'c'$X TO NMEM24
COUNT FOR.NOT.&IND .AND.'c'$Y TO NMEM25
COUNT FOR.NOT.&IND .AND.'c'$Z TO NMEM26
COUNT FOR.NOT.&IND .AND.'c'$AA TO NMEM27
COUNT FOR.NOT.&IND .AND.'c'$AB TO NMEM28
COUNT FOR.NOT.&IND .AND.'c'$AC TO NMEM29
COUNT FOR.NOT.&IND .AND.'c'$AD TO NMEM30
COUNT FOR.NOT.&IND .AND.'c'$AE TO NMEM31
COUNT FOR.NOT.&IND .AND.'c'$AF TO NMEM32
COUNT FOR.NOT.&IND .AND.'c'$AG TO NMEM33
COUNT FOR.NOT.&IND .AND.'c'$AH TO NMEM34
COUNT FOR.NOT.&IND .AND.'c'$AI TO NMEM3S
COUNT FOR.NOT.&IND .AND.'c'$AJ TO NMEM36
count for &IND to nose3


SET PRINT ON
? '          RESULTS FOR QUESTION ELEVEN'
?
? 'Total number of respondents answering &INDR =',nose3
? ' SERVICES THAT SHOULD BE PROVIDED BY LAs    &INDR  NOT &INDR          TOTAL'

?
? 'DESIGN DEVELOPMENT/SITE PLANNING............ ',MEM1,NMEM1,MEM1+NMEM1
? 'AGENCY CONSULT/REVIEW APPR/ZONING ASSIS..... ',MEM2,NMEM2,MEM2+NMEM2
? 'PROJECT FINANCING/PROJECT BUDGETING......... ',MEM3,NMEM3,MEM3+NMEM3
? 'SITE ANALYSIS.............................. ',MEM4,NMEM4,MEM4+NMEM4
? 'EROSION CONTROL............................ ',MEMS,NMEMS,MEMS+NMEMS
?
? 'STORM DRAINAGE............................. ',MEM6,NMEM6,MEM6+NMEM6
? 'ENVIRONMENTAL STUDIES...................... ',MEM7,NMEM7,MEM7+NMEM7
? 'FINANCIAL ANALYSIS......................... ',MEM8,NMEM8,MEM8+NMEM8
? 'PROJECT DEVELOPMENTAL SCHEDULING........... ',MEM9,NMEM9,MEM9+NMEM9
? 'MARKETING/FEASIBILITY STUDIES.............. ',MEM10,NMEM10,MEM10+NMEM10
?
? 'POST CONSTRUCTION/EVALUATION............... ',MEM11,NMEM11,MEM11+NMEM11
? 'SCHEMATIC/PRELIMINARY LAND PLANNING........ ',MEM12,NMEM12,MEM12+NMEM12
? 'PRE-DESIGN................................ ',MEM13,NMEM13,MEM13+NMEM13
? 'SITE SELECTION............................ ',MEM14,NMEM14,MEM14+NMEM14
? 'PLANTING PLANS............................ ',MEM1S,NMEM1S,MEM1S+NMEM1S
?
? 'MASTER PLANNING........................... ',MEM16,NMEM16,MEM16+NMEM16
? 'PRELIMINARY CONSTRUC COST ESTIMATING....... ',MEM17,NMEM17,MEM17+NMEM17
? 'IRRIGATION................................ ',MEM18,NMEM18,MEM18+NMEM18
? 'FEASIBILITY STUDIES....................... ',MEM19,NMEM19,MEM19+NMEM19
? 'PRESENTATION GRAPHICS/PUBLIC PRESENTATIONS.. ',MEM20,NMEM20,MEM20+NMEM20
?
? 'DESIGN TEAM COORDINATION.................... ',MEM21,NMEM21,MEM21+NMEM21
? 'CONSTRUCTION DOCUMENTS...................... ',MEM22,NMEM22,MEM22+NMEM22
? 'SITE LAYOUT................................ ',MEM23,NMEM23,MEM23+NMEM23
? 'PROGRAM DEVELOPMENT......................... ',MEM24,NMEM24,MEM24+NMEM24
? 'LIGHTING DESIGN............................ ',MEM2S,NMEM2S,MEM2S+NMEM2S
?
? 'BIDDING (NEGOTIATIONS)...................... ',MEM26,NMEM26,MEM26+NMEM26
? 'PROJECT ADMINISTRATION...................... ',MEM27,NMEM27,MEM27+NMEM27
? 'DETAILS,MATERIALS AND SPECIFICATIONS........ ',MEM28,NMEM28,MEM28+NMEM28
? 'ROAD ALIGNMENT AND PROFILES................. ',MEM29,NMEM29,MEM29+NMEM29
? 'LIFE CYCLE/VALUE ANALYSIS.................. ',MEM30,NMEM30,MEM30+NMEM30
?
? 'GRADING AND DRAINAGE DETAILS................ ',MEM31,NMEM31,MEM31+NMEM31
? 'SEWER COLLECTION............................ ',MEM32,NMEM32,MEM32+NMEM32
? 'WATER DISTRIBUTION.......................... ',MEM33,NMEM33,MEM33+NMEM33
? 'CONSTRUCTION ADMINISTRATION................. ',MEM34,NMEM34,MEM34+NMEM34
? 'MAINTENANCE REVIEWS AND SCHEDULING.......... ',MEM35,NMEM35,MEM35+NMEM35
? 'OTHER........................................ ',MEM36,NMEM36,MEM36+NMEM36
?
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SET PRINT OFF
RELEASE ALL EXCEPT IND

*LA SERVICES THAT NEED TO BE IMPROVED

COUNT FOR &IND .AND.'d'$A TO MEM1
COUNT FOR &IND .AND.'d'$B TO MEM2
COUNT FOR &IND .AND.'d'$C TO MEM3
COUNT FOR &IND .AND.'d'$D TO MEM4
COUNT FOR &IND .AND.'d'$E TO MEM5
COUNT FOR &IND .AND.'d'$F TO MEM6
COUNT FOR &IND .AND.'d'$G TO MEM7
COUNT FOR &IND .AND.'d'$H TO MEM8
COUNT FOR &IND .AND.'d'$I TO MEM9
COUNT FOR &IND .AND.'d'$J TO MEM10
COUNT FOR &IND .AND.'d'$K TO MEM11
COUNT FOR &IND .AND.'d'$L TO MEM12
COUNT FOR &IND .AND.'d'$M TO MEM13
COUNT FOR &IND .AND.'d'$N TO MEM14
COUNT FOR &IND .AND.'d'$O TO MEM15
COUNT FOR &IND .AND.'d'$P TO MEM16
COUNT FOR &IND .AND.'d'$Q TO MEM17
COUNT FOR &IND .AND.'d'$R TO MEM18
COUNT FOR &IND .AND.'d'$S TO MEM19
COUNT FOR &IND .AND.'d'$T TO MEM20
COUNT FOR &IND .AND.'d'$U TO MEM21
COUNT FOR &IND .AND.'d'$V TO MEM22
COUNT FOR &IND .AND.'d'$W TO MEM23
COUNT FOR &IND .AND.'d'$X TO MEM24
COUNT FOR &IND .AND.'d'$Y TO MEM25
COUNT FOR &IND .AND.'d'$Z TO MEM26
COUNT FOR &IND .AND.'d'$AA TO MEM27
COUNT FOR &IND .AND.'d'$AB TO MEM28
COUNT FOR &IND .AND.'d'$AC TO MEM29
COUNT FOR &IND .AND.'d'$AD TO MEM30
COUNT FOR &IND .AND.'d'$AE TO MEM31
COUNT FOR &IND .AND.'d'$AF TO MEM32
COUNT FOR &IND .AND.'d'$AG TO MEM33
COUNT FOR &IND .AND.'d'$AH TO MEM34
COUNT FOR &IND .AND.'d'$AI TO MEM35
COUNT FOR &IND .AND.'d'$AJ TO MEM36

COUNT FOR.NOT.&IND .AND.'d'$A TO NMEM1
COUNT FOR.NOT.&IND .AND.'d'$B TO NMEM2
COUNT FOR.NOT.&IND .AND.'d'$C TO NMEM3
COUNT FOR.NOT.&IND .AND.'d'$D TO NMEM4
COUNT FOR.NOT.&IND .AND.'d'$E TO NMEM5
COUNT FOR.NOT.&IND .AND.'d'$F TO NMEM6
COUNT FOR.NOT.&IND .AND.'d'$G TO NMEM7
COUNT FOR.NOT.&IND .AND.'d'$H TO NMEM8
COUNT FOR.NOT.&IND .AND.'d'$I TO NMEM9
COUNT FOR.NOT.&IND .AND.'d'$J TO NMEM10
COUNT FOR.NOT.&IND .AND.'d'$K TO NMEM11
COUNT FOR.NOT.&IND .AND.'d'$L TO NMEM12
COUNT FOR.NOT.&IND .AND.'d'$M TO NMEM13
COUNT FOR.NOT.&IND .AND.'d'$N TO NMEM14
COUNT FOR.NOT.&IND .AND.'d'$O TO NMEM15
COUNT FOR.NOT.&IND .AND.'d'$P TO NMEM16
COUNT FOR.NOT.&IND .AND.'d'$Q TO NMEM17
COUNT FOR.NOT.&IND .AND.'d'$R TO NMEM18
COUNT FOR.NOT.&IND .AND.'d'$5 TO NMEM19
COUNT FOR.NOT.&IND .AND.'d'$T TO NMEM20
COUNT FOR.NOT.&IND .AND.'d'$U TO NMEM21
COUNT FOR.NOT.&IND .AND.'d'$V TO NMEM22
COUNT FOR.NOT.&IND .AND.'d'$W TO NMEM23
COUNT FOR.NOT.&IND .AND.'d'$X TO NMEM24
COUNT FOR.NOT.&IND .AND.'d'$Y TO NMEM25
COUNT FOR.NOT.&IND .AND.'d'$Z TO NMEM26
COUNT FOR.NOT.&IND .AND.'d'$AA TO NMEM27
COUNT FOR.NOT.&IND .AND.'d'$AB TO NMEM28
COUNT FOR.NOT.&IND .AND.'d'$AC TO NMEM29
COUNT FOR.NOT.&IND .AND.'d'$AD TO NMEM30
COUNT FOR.NOT.&IND .AND.'d'$AE TO NMEM31
COUNT FOR.NOT.&IND .AND.'d'$AF TO NMEM32
COUNT FOR.NOT.&IND .AND.'d'$AG TO NMEM33
COUNT FOR.NOT.&IND .AND.'d'$AH TO NMEM34
COUNT FOR.NOT.&IND .AND.'d'$AI TO NMEM35
COUNT FOR.NOT.&IND .AND.'d'$AJ TO NMEM36
COUNT FOR &IND TO NO5E4
SET PRINT ON
```

```
? '            RE5ULT5 FOR QUE5TION TWELVE'
?
? 'Total number of respondents answering &INDR =',nose4
? 'Developers think that LAs should IMPROVE          &INDR  NOT &INDR       TOTAL'
?
? 'DESIGN DEVELOPMENT/5ITE PLANNING........... ',MEM1,NMEM1,MEM1+NMEM1
? 'AGENCY CON5ULT/REVIEW APPR/ZONING ASSI5..... ',MEM2,NMEM2,MEM2+NMEM2
? 'PROJECT FINANCING/PROJECT BUDGETING......... ',MEM3,NMEM3,MEM3+NMEM3
? 'SITE ANALY5IS............................... ',MEM4,NMEM4,MEM4+NMEM4
? 'ERO5ION CONTROL............................ ',MEM5,NMEM5,MEM5+NMEM5
?
? 'STORM DRAINAGE............................. ',MEM6,NMEM6,MEM6+NMEM6
? 'ENVIRONMENTAL 5TUDIE5...................... ',MEM7,NMEM7,MEM7+NMEM7
? 'FINANCIAL ANALYSIS......................... ',MEM8,NMEM8,MEM8+NMEM8
? 'PROJECT DEVELOPMENTAL 5CHEDULING........... ',MEM9,NMEM9,MEM9+NMEM9
? 'MARKETING/FEASIBILITY STUDIES.............. ',MEM10,NMEM10,MEM10+NMEM10
?
? 'POST CON5TRUCTION/EVALUATION................ ',MEM11,NMEM11,MEM11+NMEM11
? '5CHEMATIC/PRELIMINARY LAND PLANNING......... ',MEM12,NMEM12,MEM12+NMEM12
? 'PRE-DE5IGN................................ ',MEM13,NMEM13,MEM13+NMEM13
? '5ITE 5ELECTION............................ ',MEM14,NMEM14,MEM14+NMEM14
? 'PLANTING PLANS............................ ',MEM15,NMEM15,MEM15+NMEM15
?
? 'MASTER PLANNING..........................  ',MEM16,NMEM16,MEM16+NMEM16
? 'PRELIMINARY CONSTRUC CO5T ESTIMATING.......  ',MEM17,NMEM17,MEM17+NMEM17
? 'IRRIGATION................................  ',MEM18,NMEM18,MEM18+NMEM18
? 'FEASIBILITY STUDIES.......................  ',MEM19,NMEM19,MEM19+NMEM19
? 'PRESENTATION GRAPHICS/PUBLIC PRESENTATIONS.. ',MEM20,NMEM20,MEM20+NMEM20


?
? 'DE5IGN TEAM COORDINATION................... ',MEM21,NMEM21,MEM21+NMEM21
? 'CON5TRUCTION DOCUMENTS..................... ',MEM22,NMEM22,MEM22+NMEM22
? '5ITE LAYOUT................................ ',MEM23,NMEM23,MEM23+NMEM23
? 'PROGRAM DEVELOPMENT........................ ',MEM24,NMEM24,MEM24+NMEM24
? 'LIGHTING DESIGN............................ ',MEM25,NMEM25,MEM25+NMEM25
?
? 'BIDDING (NEGOTIATION5)..................... ',MEM26,NMEM26,MEM26+NMEM26
? 'PROJECT ADMINISTRATION..................... ',MEM27,NMEM27,MEM27+NMEM27
? 'DETAILS,MATERIALS AND 5PECIFICATIONS........ ',MEM28,NMEM28,MEM28+NMEM28
? 'ROAD ALIGNMENT AND PROFILES................ ',MEM29,NMEM29,MEM29+NMEM29
? 'LIFE CYCLE/VALUE ANALYSI5.................. ',MEM30,NMEM30,MEM30+NMEM30
?
? 'GRADING AND DRAINAGE DETAILS................ ',MEM31,NMEM31,MEM31+NMEM31
? '5EWER COLLECTION............................ ',MEM32,NMEM32,MEM32+NMEM32
? 'WATER DISTRIBUTION.......................... ',MEM33,NMEM33,MEM33+NMEM33
? 'CONSTRUCTION ADMINISTRATION................. ',MEM34,NMEM34,MEM34+NMEM34
? 'MAINTENANCE REVIEW5 AND 5CHEDULING.......... ',MEM35,NMEM35,MEM35+NMEM35
? 'OTHER...................................... ',MEM36,NMEM36,MEM36+NMEM36
?
SET PRINT OFF
RELEASE ALL EXCEPT IND*
```

Dbase III Plus Chi Square Program

```
USE DATA
SET TALK OFF
? 'SIGNIFICANCE TEST FOR 2 X 2 TABLE'
ACCEPT ' INSERT VARIABLE ONE HERE (PRECISELY):  ' TO IND
ACCEPT ' LABEL FOR VARIABLE ONE :  ' TO INDL1
ACCEPT ' INSERT VARIABLE TWO HERE (PRECISELY):  ' TO IND2
ACCEPT ' LABEL FOR VARIABLE TWO :  ' TO INDL2

COUNT FOR &IND .AND.&IND2 TO MEMA
COUNT FOR.NOT.&IND .AND.&IND2 TO MEMB
COUNT FOR &IND .AND..NOT.&IND2 TO MEMC
COUNT FOR.NOT.&IND .AND..NOT.&IND2 TO MEMD
STORE MEMA+MEMC+MEMB+MEMD TO SAMP

STORE MEMA*MEMD TO NUM1
STORE MEMC*MEMB TO NUM2
STORE NUM1-NUM2 TO TOP
STORE TOP^2 TO TOP1
STORE SAMP*TOP1 TO NUMERATOR
STORE MEMA+MEMC TO DEN1
STORE MEMA+MEMB TO DEN2
STORE MEMC+MEMD TO DEN3
STORE MEMB+MEMD TO DEN4
STORE DEN1*DEN2 TO DEN5
STORE DEN5*DEN3 TO DEN6
STORE DEN6*DEN4 TO DENOMINATOR
STORE NUMERATOR/DENOMINATOR TO CHI
STORE CHI*1.0000 TO CHI2
SET PRINT ON
? " &INDL1 AND &INDL2 --(A)            ",MEMA
? " NOT &INDL1 AND &INDL2 --(B)        ",MEMB
? " &INDL1 AND NOT &INDL2 --(C)        ",MEMC
? " NOT &INDL1 AND NOT &INDL2 --(D)    ",MEMD
? " TOTAL NUMBER (N)                   ",SAMP
?
? 'NUMERATOR= ', NUMERATOR
? 'DEMONINATOR= ',DENOMINATOR
?
? ' THE RESULT OF THE CHI SQUARE IS EQUAL TO   ',CHI*1.0000
?
IF CHI2>3.800
? 'CHI SQUARE IS SIGNIFICANT AT THE .0S % LEVEL OF CONFIDENCE'
ELSE
? 'THE DIFFERENCE IS NOT SIGNIFICANT AT THE .0S% LEVEL'
ENDIF
* AT ONE DEGREE OF FREEDOM
*BRUNING & KLINTZ- COMPUTATIONAL \
*HANDBOOK OF STATISTICS P.209, 221
SET PRINT OFF
```

Computer Database Structure

```
Structure for database: \dbms\analysis\data.dbf
Number of data records:     318
Date of last update   : 02/12/89
Field  Field Name  Type        Width    Dec
    1  ONE         Character       8
    2  NO_REG      Numeric         1
    3  TWO         Character       1
    4  THREE       Character       7
    5  NO_DEV      Numeric         1
    6  O_DEV       Character      15
    7  FOUR        Character       9
    8  NO_ORG      Numeric         1
    9  O_ORG       Character      25
   10  FIVE        Character       1
   11  SIX         Character       1
   12  SEVEN       Character       1
   13  EIGHT       Character       1
   14  A           Character       4
   15  B           Character       4
   16  C           Character       4
   17  D           Character       4
   18  E           Character       4
   19  F           Character       4
   20  G           Character       4
   21  H           Character       4
   22  I           Character       4
   23  J           Character       4
   24  K           Character       4
   25  L           Character       4
   26  M           Character       4
   27  N           Character       4
   28  O           Character       4
   29  P           Character       4
   30  Q           Character       4
   31  R           Character       4
   32  S           Character       4
   33  T           Character       4
   34  U           Character       4
   35  V           Character       4
   36  W           Character       4
   37  X           Character       4
   38  Y           Character       4
   39  Z           Character       4
   40  AA          Character       4
   41  AB          Character       4
   42  AC          Character       4
   43  AD          Character       4
   44  AE          Character       4
   45  AF          Character       4
```

Computer Database Structure

```
 46  AG            Character     4
 47  AH            Character     4
 48  AI            Character     4
 49  AJ            Character     4
 50  OTHER_5ERV    Character    50
 51  NO_HIRED      Numeric       6     3
 52  NO_PERCEIV    Numeric       6     3
 53  NO_PROVIDE    Numeric       6     3
 54  NO_IMPROVE    Numeric       6     3
 55  THIRTEEN      Character     1
 56  FOURTEEN      Character     1
 57  FIFTEEN       Numeric       4     2
 58  SIXTEEN       Numeric       4     2
 59  SEVENTEEN     Numeric       4     2
 60  EIGHTEEN      Character     3
 61  RE5ULT5       Logical       1
 62  SURVEY_NO     Character     5
 63  MI5C          Character     5
 64  MISC1         Character     5
** Total **                    324
```

APPENDIX D

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

D A T A

```
VARIABLE= 0 - 30 Acres

Response using variable:        85

TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE        24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
|==========================:=========:==========:
|QUESTIONS                 :Raw Data :Percentage:
|==========================:=========:==========:
|QUESTION 1 --REGIONS      :         :          :
|Northeast States          :      27 :    21.43%:
|Southeast States          :      29 :    23.02%:
|Great Lake States         :      12 :     9.52%:
|Midwest States            :      14 :    11.11%:
|Southwest States          :      12 :     9.52%:
|Pacific Northwest States  :       8 :     6.35%:
|Pacific Southwest States  :      22 :    17.46%:
|International Markets     :       2 :     1.59%:
|                          :         :          :
|--------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT   :         :          :
|Building                  :      46 :    54.12%:
|Land                      :       2 :     2.35%:
|Both                      :      34 :    40.00%:
|--------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV. :         :          :
|Commercial                :      52 :    23.32%:
|Industrial                :      45 :    20.18%:
|Residential               :      20 :     8.97%:
|Office                    :      57 :    25.56%:
|Resort/Recreation         :      13 :     5.83%:
|Shopping Centers          :      27 :    12.11%:
|Other                     :       9 :     4.04%:
|--------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS :         :          :
|AIA                       :      10 :     6.54%:
|APA                       :       0 :     0.00%:
|ASCE                      :       3 :     1.96%:
|ASLA                      :       2 :     1.31%:
|ARROA                     :       6 :     3.92%:
|ULI                       :      31 :    20.26%:
|NAHB                      :       8 :     5.23%:
|NAIOP                     :      73 :    47.71%:
|Other                     :      20 :    13.07%:
|--------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :        :          :
|0 - 10                    :      18 :    21.18%:
|11 -20                    :      29 :    34.12%:
|21 - 30                   :      24 :    28.24%:
|31 - 40                   :       8 :     9.41%:
|41 - 50                   :       2 :     2.35%:
|Over 51                   :       4 :     4.71%:
|--------------------------:---------:----------:
```

```
|---------------------------:---------:----------:
|QUESTION 6--ACRES          :         :          :
|0 - 30                     :      85 :   100.00%:
|30 - 100                   :       0 :     0.00%:
|101 - 200                  :       0 :     0.00%:
|201 - 300                  :       0 :     0.00%:
|301 - 500                  :       0 :     0.00%:
|Over 500                   :       0 :     0.00%:
|---------------------------:---------:----------:
|QUESTION 7--$ VOLUME       :         :          :
|0 - $100,000               :       3 :     3.53%:
|$100,00 - $250,000         :       1 :     1.18%:
|$250,000 - $500,000        :       4 :     4.71%:
|$500,000 - 1 million       :       4 :     4.71%:
|1 million - 2 million      :       9 :    10.59%:
|2 million - 5 million      :      19 :    22.35%:
|Over 5 million dollars     :      44 :    51.76%:
|---------------------------:---------:----------:
|QUESTION 8--USE LA'S       :         :          :
|Yes                        :      75 :    88.24%:
|No                         :       7 :     8.24%:
|---------------------------:---------:----------:
|QUESTION 13--STAGES        :         :          :
|Early                      :      47 :    55.29%:
|Middle                     :      15 :    17.65%:
|Late                       :      10 :    11.76%:
|---------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:         :          :
|Yes                        :      11 :    12.94%:
|No                         :      74 :    87.06%:
|---------------------------:---------:----------:
|QUESTION 15--SUPERVISORY   :         :          :
|Never                      :      26 :    30.59%:
|Almost Never               :      20 :    23.53%:
|Sometimes                  :      17 :    20.00%:
|Almost Always              :      10 :    11.76%:
|Always                     :       7 :     8.24%:
|---------------------------:---------:----------:
|QUESTION 16--RATING        :         :          :
|Inferior                   :       2 :     2.35%:
|Fair                       :      17 :    20.00%:
|Good                       :      42 :    49.41%:
|Excellent                  :      13 :    15.29%:
|No Basis For Judgement     :       6 :     7.06%:
|---------------------------:---------:----------:
|QUESTION 17--VALUE         :         :          :
|Of No Value                :       1 :     1.18%:
|Minimal Value              :       7 :     8.24%:
|Moderate Value             :      13 :    15.29%:
|Considerable Value         :      45 :    52.94%:
|Major Value                :      17 :    20.00%:
|---------------------------:---------:----------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= 0 - 30 Acres

Response using variable: 85

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTION # 9

H I R E D SERVICES	Raw Data	Percentages
Design Development/Site Planning	56	65.88%
Agency Consul./Review Approv./Zoning Assist.	35	41.18%
Project Financing/Project Budgeting	15	17.65%
Site Analysis	30	35.29%
Erosion Control	22	25.88%
Storm Drainage	17	20.00%
Environmental Studies	12	14.12%
Financial Analysis	4	4.71%
Project Development Scheduling	8	9.41%
Marketing/Feasibility Studies	4	4.71%
Post Construction/Evaluation	10	11.76%
Schematic/Preliminary Land Planning	32	37.65%
Pre-Design	22	25.88%
Site Selection	7	8.24%
Planting Plans	69	81.18%
Master Plans	34	40.00%
Preliminary Construction Cost Estimating	18	21.18%
Irrigation	47	55.29%
Feasibility Studies	6	7.06%
Presentation Graphics/Public Presentations	31	36.47%
Design Team Coordination	15	17.65%
Construction Documents	34	40.00%
Site Layout	30	35.29%
Program Development	9	10.59%
Lighting design	26	30.59%
Bidding(Negotiations)	23	27.06%
Project Administration	15	17.65%
Details, Materials, Specifications	42	49.41%
Road Alignment and Profiles	14	16.47%
Life Cycle/Value Analysis	6	7.06%
Grading and Drainage Details	20	23.53%
Sewer Collection	6	7.06%
Water Distribution	12	14.12%
Construction Administration	8	9.41%
Maintenance Reviews and Scheduling	10	11.76%
Other, please explain	4	4.71%

VARIABLE= 0 - 30 Acres

QUESTION # 10

PERCEIVE SERVICES	Raw Data	Percentages
Design Development/Site Planning	44	51.76%
Agency Consul./Review Approv./Zoning Assist.	32	37.65%
Project Financing/Project Budgeting	15	17.65%
Site Analysis	32	37.65%
Erosion Control	32	37.65%
Storm Drainage	23	27.06%
Environmental Studies	14	16.47%
Financial Analysis	6	7.06%
Project Development Scheduling	9	10.59%
Marketing/Feasibility Studies	4	4.71%
Post Construction/Evaluation	14	16.47%
Schematic/Preliminary Land Planning	33	38.82%
Pre-Design	26	30.59%
Site Selection	11	12.94%
Planting Plans	58	68.24%
Master Plans	35	41.18%
Preliminary Construction Cost Estimating	21	24.71%
Irrigation	46	54.12%
Feasibility Studies	9	10.59%
Presentation Graphics/Public Presentations	36	42.35%
Design Team Coordination	15	17.65%
Construction Documents	34	40.00%
Site Layout	33	38.82%
Program Development	12	14.12%
Lighting design	28	32.94%
Bidding(Negotiations)	23	27.06%
Project Administration	19	22.35%
Details, Materials, Specifications	40	47.06%
Road Alignment and Profiles	17	20.00%
Life Cycle/Value Analysis	11	12.94%
Grading and Drainage Details	23	27.06%
Sewer Collection	8	9.41%
Water Distribution	12	14.12%
Construction Administration	11	12.94%
Maintenance Reviews and Scheduling	22	25.88%
Other, please explain	4	4.71%

```
VARIABLE= 0 - 30 Acres                              P R O V I D E                      QUESTION # 11
                                                   |S E R V I C E S                     :Raw Data :Percentages :
                                                   |-----------------------------------------:---------:-----------:
                                                   |Design Development/Site Planning         :      42 :     49.41%:
                                                   |Agency Consul./Review Approv./Zoning Assist. :  41 :     48.24%:
                                                   |Project Financing/Project Budgeting      :      21 :     24.71%:
                                                   |Site Analysis                            :      39 :     45.88%:
                                                   |Erosion Control                          :      37 :     43.53%:
                                                   |                                         :         :           :
                                                   |Storm Drainage                           :      21 :     24.71%:
                                                   |Environmental Studies                    :      21 :     24.71%:
                                                   |Financial Analysis                       :       7 :      8.24%:
                                                   |Project Development Scheduling           :      11 :     12.94%:
                                                   |Marketing/Feasibility Studies            :       7 :      8.24%:
                                                   |                                         :         :           :
                                                   |Post Construction/Evaluation             :      20 :     23.53%:
                                                   |Schematic/Preliminary Land Planning      :      39 :     45.88%:
                                                   |Pre-Design                               :      29 :     34.12%:
                                                   |Site Selection                           :      20 :     23.53%:
                                                   |Planting Plans                           :      61 :     71.76%:
                                                   |                                         :         :           :
                                                   |Master Plans                             :      35 :     41.18%:
                                                   |Preliminary Construction Cost Estimating :      27 :     31.76%:
                                                   |Irrigation                               :      51 :     60.00%:
                                                   |Feasibility Studies                      :      13 :     15.29%:
                                                   |Presentation Graphics/Public Presentations :    38 :     44.71%:
                                                   |                                         :         :           :
                                                   |Design Team Coordination                 :      15 :     17.65%:
                                                   |Construction Documents                   :      34 :     40.00%:
                                                   |Site Layout                              :      31 :     36.47%:
                                                   |Program Development                    :      14 :     16.47%:
                                                   |Lighting design                          :      30 :     35.29%:
                                                   |                                         :         :           :
                                                   |Bidding(Negotiations)                    :      29 :     34.12%:
                                                   |Project Administration                   :      24 :     28.24%:
                                                   |Details, Materials, Specifications       :      43 :     50.59%:
                                                   |Road Alignment and Profiles              :      20 :     23.53%:
                                                   |Life Cycle/Value Analysis                :      16 :     18.82%:
                                                   |                                         :         :           :
                                                   |Grading and Drainage Details             :      22 :     25.88%:
                                                   |Sewer Collection                         :      10 :     11.76%:
                                                   |Water Distribution                       :      14 :     16.47%:
                                                   |Construction Administration              :      18 :     21.18%:
                                                   |Maintenance Reviews and Scheduling       :      27 :     31.76%:
                                                   |Other, please explain                    :       3 :      3.53%:
                                                   |-----------------------------------------:---------:-----------:
```

```
VARIABLE= 0 - 30 Acres          I M P R O V E                                        QUESTION # 12
                                |S E R V I C E S                           :Raw Data :Percentages :
                                |------------------------------------------:---------:------------:
                                |Design Development/Site Planning          :     9 :      10.59%:
                                |Agency Consul./Review Approv./Zoning Assist. :  11 :      12.94%:
                                |Project Financing/Project Budgeting       :    11 :      12.94%:
                                |Site Analysis                             :    12 :      14.12%:
                                |Erosion Control                           :    10 :      11.76%:
                                |                                          :       :            :
                                |Storm Drainage                            :    10 :      11.76%:
                                |Environmental Studies                     :     9 :      10.59%:
                                |Financial Analysis                        :     7 :       8.24%:
                                |Project Development Scheduling            :     5 :       5.88%:
                                |Marketing/Feasibility Studies             :     8 :       9.41%:
                                |                                          :       :            :
                                |Post Construction/Evaluation              :     7 :       8.24%:
                                |Schematic/Preliminary Land Planning       :    11 :      12.94%:
                                |Pre-Design                                :     7 :       8.24%:
                                |Site Selection                            :     4 :       4.71%:
                                |Planting Plans                            :    14 :      16.47%:
                                |                                          :       :            :
                                |Master Plans                              :     9 :      10.59%:
                                |Preliminary Construction Cost Estimating  :    14 :      16.47%:
                                |Irrigation                                :    12 :      14.12%:
                                |Feasibility Studies                       :     5 :       5.88%:
                                |Presentation Graphics/Public Presentations :    7 :       8.24%:
                                |                                          :       :            :
                                |Design Team Coordination                  :    10 :      11.76%:
                                |Construction Documents                    :     8 :       9.41%:
                                |Site Layout                               :     6 :       7.06%:
                                |Program Development                       :     3 :       3.53%:
                                |Lighting design                           :    13 :      15.29%:
                                |                                          :       :            :
                                |Bidding(Negotiations)                     :    14 :      16.47%:
                                |Project Administration                    :    10 :      11.76%:
                                |Details, Materials, Specifications        :    14 :      16.47%:
                                |Road Alignment and Profiles               :     9 :      10.59%:
                                |Life Cycle/Value Analysis                 :    16 :      18.82%:
                                |                                          :       :            :
                                |Grading and Drainage Details              :     6 :       7.06%:
                                |Sewer Collection                          :     3 :       3.53%:
                                |Water Distribution                        :     4 :       4.71%:
                                |Construction Administration               :     9 :      10.59%:
                                |Maintenance Reviews and Scheduling        :     9 :      10.59%:
                                |Other, please explain                     :     2 :       2.35%:
                                |------------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= 30 - 100 Acres

Response using variable: 87

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q3=	314	Q14=	313
Q6=	312	Q13=	303
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	32	22.54%
Southeast States	32	22.54%
Great Lake States	15	10.56%
Midwest States	13	9.13%
Southwest States	16	11.27%
Pacific Northwest States	9	6.34%
Pacific Southwest States	24	16.90%
International Markets	1	0.70%
QUESTION 2--DEVELOPMENT		
Building	24	27.39%
Land	4	4.60%
Both	37	63.32%
QUESTION 3--SPECIFIC DEV.		
Commercial	64	23.02%
Industrial	59	21.22%
Residential	33	11.87%
Office	67	24.10%
Resort/Recreation	9	3.24%
Shopping Centers	36	12.95%
Other	10	3.60%
QUESTION 4--ORGANIZATIONS		
AIA	23	11.73%
APA	3	1.53%
ASCE	6	3.06%
ASLA	6	3.06%
ARRDA	2	1.02%
ULI	46	23.47%
NAHB	13	6.63%
NAIOP	74	37.76%
Other	23	11.73%
QUESTION 3--YRS EXPERIENCE		
0 - 10	12	13.79%
11 -20	32	36.78%
21 - 30	27	31.03%
31 - 40	6	6.90%
41 - 50	1	1.15%
Over 51	7	8.05%

```
|---------------------------:---------:----------:
|QUESTION 6--ACRES          :       0 :          :
|0 - 30                     :      87 :   100.00%:
|30 - 100                   :       0 :     0.00%:
|101 - 200                  :       0 :     0.00%:
|201 - 300                  :       0 :     0.00%:
|301 - 500                  :       0 :     0.00%:
|Over 500                   :       0 :     0.00%:
|---------------------------:---------:----------:
|QUESTION 7--$ VOLUME       :         :          :
|0 - $100,000               :       1 :     1.15%:
|$100,00 - $250,000         :       2 :     2.30%:
|$250,000 - $500,000        :       1 :     1.15%:
|$500,000 - 1 million       :       4 :     4.60%:
|1 million - 2 million      :      10 :    11.49%:
|2 million - 5 million      :      13 :    14.94%:
|Over 5 million dollers     :      55 :    63.22%:
|---------------------------:---------:----------:
|QUESTION 8--USE LA'S       :         :          :
|Yes                        :      82 :    94.25%:
|No                         :       5 :     5.75%:
|---------------------------:---------:----------:
|QUESTION 13--STAGES        :         :          :
|Eerly                      :      52 :    59.77%:
|Middle                     :      12 :    13.79%:
|Late                       :      10 :    11.49%:
|---------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:         :          :
|Yes                        :       7 :     8.05%:
|No                         :      79 :    90.80%:
|---------------------------:---------:----------:
|QUESTION 15--SUPERVISORY   :         :          :
|Never                      :      34 :    39.08%:
|Almost Never               :      12 :    13.79%:
|Sometimes                  :      24 :    27.59%:
|Almost Always              :      11 :    12.64%:
|Always                     :       3 :     3.45%:
|---------------------------:---------:----------:
|QUESTION 16--RATING        :         :          :
|Inferior                   :       1 :     1.15%:
|Fair                       :      20 :    22.99%:
|Good                       :      45 :    51.72%:
|Excellent                  :      14 :    16.09%:
|No Besis For Judgement     :       4 :     4.60%:
|---------------------------:---------:----------:
|QUESTION 17--VALUE         :         :          :
|Of No Value                :       0 :     0.00%:
|Minimal Value              :       5 :     5.75%:
|Moderate Value             :      23 :    26.44%:
|Considerable Value         :      38 :    43.68%:
|Major Value                :      17 :    19.54%:
|---------------------------:---------:----------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= 30 - 100 Acres

Response using variable: 87

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTION # 9

HIRED SERVICES	Raw Data	Percentages
Design Development/Site Planning	68	78.16%
Agency Consul./Review Approv./Zoning Assist.	40	45.98%
Project Financing/Project Budgeting	17	19.54%
Site Analysis	46	52.87%
Erosion Control	33	37.93%
Storm Drainage	23	26.44%
Environmental Studies	19	21.84%
Financial Analysis	5	5.75%
Project Development Scheduling	6	6.90%
Marketing/Feasibility Studies	5	5.75%
Post Construction/Evaluation	15	17.24%
Schematic/Preliminary Land Planning	49	56.32%
Pre-Design	36	41.38%
Site Selection	4	4.60%
Planting Plans	74	85.06%
Master Plans	38	43.68%
Preliminary Construction Cost Estimating	29	33.33%
Irrigation	51	58.62%
Feasibility Studies	13	14.94%
Presentation Graphics/Public Presentations	48	55.17%
Design Team Coordination	15	17.24%
Construction Documents	35	40.23%
Site Layout	43	49.43%
Program Development	14	16.09%
Lighting design	33	37.93%
Bidding(Negotiations)	20	22.99%
Project Administration	18	20.69%
Details, Materials, Specifications	45	51.72%
Road Alignment and Profiles	19	21.84%
Life Cycle/Value Analysis	9	10.34%
Grading and Drainage Details	24	27.59%
Sewer Collection	6	6.90%
Water Distribution	7	8.05%
Construction Administration	9	10.34%
Maintenance Reviews and Scheduling	20	22.99%
Other, please explain	2	2.30%

```
VARIABLE= 30 - 100 Acres                   P  E  R  C  E  I  V  E                          QUESTION # 10
                                           |S  E  R  V  I  C  E  S                     :Raw Data :Percentages :
                                           |-----------------------------------------:---------:------------:
                                           |Design Development/Site Planning          :      43 :      49.43%:
                                           |Agency Consul./Review Approv./Zoning Assist. :   26 :      29.89%:
                                           |Project Financing/Project Budgeting       :       9 :      10.34%:
                                           |Site Analysis                             :      35 :      40.23%:
                                           |Erosion Control                           :      29 :      33.33%:
                                           |                                          :         :            :
                                           |Storm Drainage                            :      16 :      18.39%:
                                           |Environmental Studies                     :      25 :      28.74%:
                                           |Financial Analysis                        :       2 :       2.30%:
                                           |Project Development Scheduling            :       6 :       6.90%:
                                           |Marketing/Feasibility Studies             :       4 :       4.60%:
                                           |                                          :         :            :
                                           |Post Construction/Evaluation              :      17 :      19.54%:
                                           |Schematic/Preliminary Land Planning       :      37 :      42.53%:
                                           |Pre-Design                                :      28 :      32.18%:
                                           |Site Selection                            :      11 :      12.64%:
                                           |Planting Plans                            :      46 :      52.87%:
                                           |                                          :         :            :
                                           |Master Plans                              :      29 :      33.33%:
                                           |Preliminary Construction Cost Estimating  :      22 :      25.29%:
                                           |Irrigation                                :      38 :      43.68%:
                                           |Feasibility Studies                       :      11 :      12.64%:
                                           |Presentation Graphics/Public Presentations :     41 :      47.13%:
                                           |                                          :         :            :
                                           |Design Team Coordination                  :       8 :       9.20%:
                                           |Construction Documents                    :      23 :      26.44%:
                                           |Site Layout                               :      32 :      36.78%:
                                           |Program Development                     :      15 :      17.24%:
                                           |Lighting design                           :      27 :      31.03%:
                                           |                                          :         :            :
                                           |Bidding(Negotiations)                     :      20 :      22.99%:
                                           |Project Administration                    :      15 :      17.24%:
                                           |Details, Materials, Specifications        :      26 :      29.89%:
                                           |Road Alignment and Profiles               :      11 :      12.64%:
                                           |Life Cycle/Value Analysis                 :       8 :       9.20%:
                                           |                                          :         :            :
                                           |Grading and Drainage Details              :      19 :      21.84%:
                                           |Sewer Collection                          :       3 :       3.45%:
                                           |Water Distribution                        :       6 :       6.90%:
                                           |Construction Administration               :       9 :      10.34%:
                                           |Maintenance Reviews and Scheduling        :      13 :      14.94%:
                                           |Other, please explain                     :       2 :       2.30%:
                                           |-----------------------------------------:---------:------------:
```

VARIABLE= 30 - 100 Acres

PROVIDE QUESTION # 11

SERVICES	Raw Data	Percentages
Design Development/Site Planning	43	49.43%
Agency Consul./Review Approv./Zoning Assist.	36	41.38%
Project Financing/Project Budgeting	24	27.59%
Site Analysis	45	51.72%
Erosion Control	39	44.83%
Storm Drainage	25	28.74%
Environmental Studies	32	36.78%
Financial Analysis	8	9.20%
Project Development Scheduling	10	11.49%
Marketing/Feasibility Studies	8	9.20%
Post Construction/Evaluation	26	29.89%
Schematic/Preliminary Land Planning	41	47.13%
Pre-Design	36	41.38%
Site Selection	21	24.14%
Planting Plans	47	54.02%
Master Plans	37	42.53%
Preliminary Construction Cost Estimating	29	33.33%
Irrigation	43	49.43%
Feasibility Studies	19	21.84%
Presentation Graphics/Public Presentations	42	48.28%
Design Team Coordination	15	17.24%
Construction Documents	28	32.18%
Site Layout	39	44.83%
Program Development	23	26.44%
Lighting design	36	41.38%
Bidding(Negotiations)	22	25.29%
Project Administration	20	22.99%
Details, Materials, Specifications	33	37.93%
Road Alignment and Profiles	16	18.39%
Life Cycle/Value Analysis	20	22.99%
Grading and Drainage Details	24	27.59%
Sewer Collection	8	9.20%
Water Distribution	10	11.49%
Construction Administration	13	14.94%
Maintenance Reviews and Scheduling	18	20.69%
Other, please explain	2	2.30%

VARIABLE= 30 - 100 Acres

IMPROVE

QUESTION # 12

SERVICES	Raw Data	Percentages
Design Development/Site Planning	16	18.39%
Agency Consul./Review Approv./Zoning Assist.	26	29.89%
Project Financing/Project Budgeting	18	20.69%
Site Analysis	17	19.54%
Erosion Control	12	13.79%
Storm Drainage	13	14.94%
Environmental Studies	16	18.39%
Financial Analysis	6	6.90%
Project Development Scheduling	2	2.30%
Marketing/Feasibility Studies	5	5.75%
Post Construction/Evaluation	7	8.05%
Schematic/Preliminary Land Planning	14	16.09%
Pre-Design	12	13.79%
Site Selection	5	5.75%
Planting Plans	10	11.49%
Master Plans	14	16.09%
Preliminary Construction Cost Estimating	18	20.69%
Irrigation	11	12.64%
Feasibility Studies	17	19.54%
Presentation Graphics/Public Presentations	10	11.49%
Design Team Coordination	8	9.20%
Construction Documents	7	8.05%
Site Layout	13	14.94%
Program Development	10	11.49%
Lighting design	18	20.69%
Bidding(Negotiations)	7	8.05%
Project Administration	4	4.60%
Details, Materials, Specifications	10	11.49%
Road Alignment and Profiles	5	5.75%
Life Cycle/Value Analysis	11	12.64%
Grading and Drainage Details	15	17.24%
Sewer Collection	5	5.75%
Water Distribution	6	6.90%
Construction Administration	5	5.75%
Maintenanca Reviews and Scheduling	9	10.34%
Other, please explain	3	3.45%

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

```
VARIABLE= 101- 200 Acres

Response using variable:        52

TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=    314 |  Q10=    222 |
Q2=    309 |  Q11=    233 |
Q3=    317 |  Q12=    187 |
Q4=    317 |  Q13=    270 |
Q5=    314 |  Q14=    315 |
Q6=    312 |  Q15=    305 |
Q7=    309 |  Q16=    301 |
Q8=    313 |  Q17=    306 |
Q9=    293 |              |
==========|==============|
```

```
|==========================:=========:==========:
|QUESTIONS                 :Raw Data :Percentage:
|==========================:=========:==========:
|QUESTION 1 --REGIONS      :         :          :
|Northeast States          :      18 :    24.66%:
|Southeast States          :      22 :    30.14%:
|Great Lake States         :       7 :     9.59%:
|Midwest States            :       4 :     5.48%:
|Southwest States          :       7 :     9.59%:
|Pacific Northwest States  :       2 :     2.74%:
|Pacific Southwest States  :      12 :    16.44%:
|International Markets     :       1 :     1.37%:
|                          :         :          :
|--------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT   :         :          :
|Building                  :      14 :    26.92%:
|Land                      :       1 :     1.92%:
|Both                      :      34 :    65.38%:
|--------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV. :         :          :
|Commercial                :      42 :    22.83%:
|Industrial                :      41 :    22.28%:
|Residential               :      23 :    12.50%:
|Office                    :      42 :    22.83%:
|Resort/Recreation         :       6 :     3.26%:
|Shopping Centers          :      24 :    13.04%:
|Other                     :       6 :     3.26%:
|--------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS :         :          :
|AIA                       :       8 :     6.61%:
|APA                       :       4 :     3.31%:
|ASCE                      :       4 :     3.31%:
|ASLA                      :       3 :     2.48%:
|ARROA                     :       2 :     1.65%:
|ULI                       :      29 :    23.97%:
|NAHB                      :       8 :     6.61%:
|NAIOP                     :      47 :    38.84%:
|Other                     :      16 :    13.22%:
|--------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :        :          :
|0 - 10                    :      11 :    21.15%:
|11 -20                    :      16 :    30.77%:
|21 - 30                   :      19 :    36.54%:
|31 - 40                   :       2 :     3.85%:
|41 - 50                   :       2 :     3.85%:
|Over 51                   :       2 :     3.85%:
|--------------------------:---------:----------:
```

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :       0 :     0.00%:
|30 - 100                  :       0 :     0.00%:
|101 - 200                 :      52 :   100.00%:
|201 - 300                 :       0 :     0.00%:
|301 - 500                 :       0 :     0.00%:
|Over 500                  :       0 :     0.00%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :       0 :     0.00%:
|$100,00 - $250,000        :       0 :     0.00%:
|$250,000 - $500,000       :       0 :     0.00%:
|$500,000 - 1 million      :       5 :     9.62%:
|1 million - 2 million     :       2 :     3.85%:
|2 million - 5 million     :       4 :     7.69%:
|Over 5 million dollars    :      40 :    76.92%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :      49 :    94.23%:
|No                        :       3 :     5.77%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :      28 :    53.85%:
|Middle                    :      10 :    19.23%:
|Late                      :       4 :     7.69%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :       8 :    15.38%:
|No                        :      43 :    82.69%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :      17 :    32.69%:
|Almost Never              :       8 :    15.38%:
|Sometimes                 :      13 :    25.00%:
|Almost Always             :       7 :    13.46%:
|Always                    :       5 :     9.62%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :       0 :     0.00%:
|Fair                      :      15 :    28.85%:
|Good                      :      24 :    46.15%:
|Excellent                 :       6 :    11.54%:
|No Basis For Judgement    :       3 :     5.77%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :       0 :     0.00%:
|Minimal Value             :       5 :     9.62%:
|Moderate Value            :      11 :    21.15%:
|Considerable Value        :      29 :    55.77%:
|Major Value               :       5 :     9.62%:
|--------------------------:---------:----------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= 101 - 200 Acres

Response using variable: 52

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

HIRED

QUESTION # 9

SERVICES	Raw Data	Percentages
Design Development/Site Planning	40	76.92%
Agency Consul./Review Approv./Zoning Assist.	25	48.08%
Project Financing/Project Budgeting	13	25.00%
Site Analysis	32	61.54%
Erosion Control	20	38.46%
Storm Drainage	11	21.15%
Environmental Studies	14	26.92%
Financial Analysis	0	0.00%
Project Development Scheduling	6	11.54%
Marketing/Feasibility Studies	4	7.69%
Post Construction/Evaluation	10	19.23%
Schematic/Preliminary Land Planning	30	57.69%
Pre-Design	17	32.69%
Site Selection	5	9.62%
Planting Plans	43	82.69%
Master Plans	34	65.38%
Preliminary Construction Cost Estimating	22	42.31%
Irrigation	30	57.69%
Feasibility Studies	13	25.00%
Presentation Graphics/Public Presentations	33	63.46%
Design Team Coordination	13	25.00%
Construction Documents	20	38.46%
Site Layout	26	50.00%
Program Development	6	11.54%
Lighting design	17	32.69%
Bidding(Negotiations)	14	26.92%
Project Administration	14	26.92%
Details, Materials, Specifications	30	57.69%
Road Alignment and Profiles	13	25.00%
Life Cycle/Value Analysis	4	7.69%
Grading and Drainage Details	19	36.54%
Sewer Collection	9	17.31%
Water Distribution	11	21.15%
Construction Administration	9	17.31%
Maintenance Reviews and Scheduling	15	28.85%
Other, please explain	0	0.00%

VARIABLE= 101- 200 Acres

```
P  E  R  C  E  I  V  E                                 QUESTION # 10
|S  E  R  V  I  C  E  S                       :Raw Data :Percentages :
|--------------------------------------------:---------:------------:
|Design Development/Site Planning             :      25 :     48.08%:
|Agency Consul./Review Approv./Zoning Assist. :      15 :     28.85%:
|Project Financing/Project Budgeting          :       5 :      9.62%:
|Site Analysis                                :      19 :     36.54%:
|Erosion Control                              :      14 :     26.92%:
|                                             :         :           :
|Storm Drainage                               :       7 :     13.46%:
|Environmental Studies                        :       7 :     13.46%:
|Financial Analysis                           :       1 :      1.92%:
|Project Development Scheduling               :       7 :     13.46%:
|Marketing/Feasibility Studies                :       4 :      7.69%:
|                                             :         :           :
|Post Construction/Evaluation                 :      10 :     19.23%:
|Schematic/Preliminary Land Planning          :      19 :     36.54%:
|Pre-Design                                   :      15 :     28.85%:
|Site Selection                               :       8 :     15.38%:
|Planting Plans                               :      30 :     57.69%:
|                                             :         :           :
|Master Plans                                 :      16 :     30.77%:
|Preliminary Construction Cost Estimating     :      13 :     25.00%:
|Irrigation                                   :      21 :     40.38%:
|Feasibility Studies                          :      10 :     19.23%:
|Presentation Graphics/Public Presentations   :      20 :     38.46%:
|                                             :         :           :
|Design Team Coordination                     :      10 :     19.23%:
|Construction Documents                       :      11 :     21.15%:
|Site Layout                                  :      17 :     32.69%:
|Program Development                         :        5 :     9.62%:
|Lighting design                              :      13 :     25.00%:
|                                             :         :           :
|Bidding(Negotiations)                        :      11 :     21.15%:
|Project Administration                       :      10 :     19.23%:
|Details, Materials, Specifications           :      18 :     34.62%:
|Road Alignment and Profiles                  :       8 :     15.38%:
|Life Cycle/Value Analysis                    :       6 :     11.54%:
|                                             :         :           :
|Grading and Drainage Details                 :      15 :     28.85%:
|Sewer Collection                             :       5 :      9.62%:
|Water Distribution                           :       8 :     15.38%:
|Construction Administration                  :       6 :     11.54%:
|Maintenance Reviews and Scheduling           :      11 :     21.15%:
|Other, please explain                        :       0 :      0.00%:
|--------------------------------------------:---------:------------:
```

```
VARIABLE= 101- 200 Acres                  P R O V I D E                                QUESTION # 11
                                          |S E R V I C E S                         :Raw Data :Percentages :
                                          |----------------------------------------:---------:------------:
                                          |Design Development/Site Planning        :      32 :     61.54%:
                                          |Agency Consul./Review Approv./Zoning Assist. :  22 :     42.31%:
                                          |Project Financing/Project Budgeting     :      14 :     26.92%:
                                          |Site Analysis                           :      23 :     44.23%:
                                          |Erosion Control                         :      21 :     40.38%:
                                          |                                        :         :           :
                                          |Storm Drainage                          :      15 :     28.85%:
                                          |Environmental Studies                   :      13 :     25.00%:
                                          |Financial Analysis                      :       4 :      7.69%:
                                          |Project Development Scheduling          :      11 :     21.15%:
                                          |Marketing/Feasibility Studies           :       9 :     17.31%:
                                          |                                        :         :           :
                                          |Post Construction/Evaluation            :      17 :     32.69%:
                                          |Schematic/Preliminary Land Planning     :      25 :     48.08%:
                                          |Pre-Design                              :      19 :     36.54%:
                                          |Site Selection                          :      14 :     26.92%:
                                          |Planting Plans                          :      34 :     65.38%:
                                          |                                        :         :           :
                                          |Master Plans                            :      24 :     46.15%:
                                          |Preliminary Construction Cost Estimating :     23 :     44.23%:
                                          |Irrigation                              :      26 :     50.00%:
                                          |Feasibility Studies                     :      16 :     30.77%:
                                          |Presentation Graphics/Public Presentations :    26 :     50.00%:
                                          |                                        :         :           :
                                          |Design Team Coordination                :      17 :     32.69%:
                                          |Construction Documents                  :      19 :     36.54%:
                                          |Site Layout                             :      25 :     48.08%:
                                          |Program Development                     :      13 :     25.00%:
                                          |Lighting design                         :      22 :     42.31%:
                                          |                                        :         :           :
                                          |Bidding(Negotiations)                   :      19 :     36.54%:
                                          |Project Administration                  :      19 :     36.54%:
                                          |Details, Materials, Specifications      :      27 :     51.92%:
                                          |Road Alignment and Profiles             :      14 :     26.92%:
                                          |Life Cycle/Value Analysis               :      12 :     23.08%:
                                          |                                        :         :           :
                                          |Grading and Drainage Details            :      22 :     42.31%:
                                          |Sewer Collection                        :      10 :     19.23%:
                                          |Water Distribution                      :      14 :     26.92%:
                                          |Construction Administration             :      12 :     23.08%:
                                          |Maintenance Reviews and Scheduling      :      17 :     32.69%:
                                          |Other, please explain                   :       1 :      1.92%:
                                          |----------------------------------------:---------:------------:
```

```
VARIABLE= 101- 200 Acres          I  M  P  R  O  V  E                       QUESTION # 12
                                  |S  E  R  V  I  C  E  S                   :Raw Data :Percentages :
                                  |-----------------------------------------:---------:------------:
                                  |Design Development/Site Planning         :     10 :      19.23%:
                                  |Agency Consul./Review Approv./Zoning Assist. :  8 :      15.38%:
                                  |Project Financing/Project Budgeting      :     14 :      26.92%:
                                  |Site Analysis                            :      6 :      11.54%:
                                  |Erosion Control                          :      5 :       9.62%:
                                  |                                         :        :            :
                                  |Storm Drainage                           :      4 :       7.69%:
                                  |Environmental Studies                    :      3 :       5.77%:
                                  |Financial Analysis                       :      5 :       9.62%:
                                  |Project Development Scheduling           :      5 :       9.62%:
                                  |Marketing/Feasibility Studies            :      4 :       7.69%:
                                  |                                         :        :            :
                                  |Post Construction/Evaluation             :      3 :       5.77%:
                                  |Schematic/Preliminary Land Planning      :      6 :      11.54%:
                                  |Pre-Design                               :      3 :       5.77%:
                                  |Site Selection                           :      2 :       3.85%:
                                  |Planting Plans                           :      8 :      15.38%:
                                  |                                         :        :            :
                                  |Master Plans                             :     13 :      25.00%:
                                  |Preliminary Construction Cost Estimating :     15 :      28.85%:
                                  |Irrigation                               :      5 :       9.62%:
                                  |Feasibility Studies                      :      7 :      13.46%:
                                  |Presentation Graphics/Public Presentations :    7 :      13.46%:
                                  |                                         :        :            :
                                  |Design Team Coordination                 :      8 :      15.38%:
                                  |Construction Documents                   :      8 :      15.38%:
                                  |Site Layout                              :      5 :       9.62%:
                                  |Program Development                     :      7 :      13.46%:
                                  |Lighting design                          :      6 :      11.54%:
                                  |                                         :        :            :
                                  |Bidding(Negotiations)                    :      7 :      13.46%:
                                  |Project Administration                   :      8 :      15.38%:
                                  |Details, Materials, Specifications       :      9 :      17.31%:
                                  |Road Alignment and Profiles              :      2 :       3.85%:
                                  |Life Cycle/Value Analysis                :      6 :      11.54%:
                                  |                                         :        :            :
                                  |Grading and Drainage Details             :      5 :       9.62%:
                                  |Sewer Collection                         :      3 :       5.77%:
                                  |Water Distribution                       :      5 :       9.62%:
                                  |Construction Administration              :      5 :       9.62%:
                                  |Maintenance Reviews and Scheduling       :      5 :       9.62%:
                                  |Other, please explain                    :      1 :       1.92%:
                                  |-----------------------------------------:---------:------------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES                        D A T A
```

```
VARIABLE= 201 - 300 Acres

Response using variable:       14

TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
|==========================:=========:==========:
|QUESTIONS                 :Raw Data :Percentage:
|==========================:=========:==========:
|QUESTION 1 --REGIONS      :         :          :
|Northeast States          :       5 :    18.52%:
|Southeast States          :      11 :    40.74%:
|Great Lake States         :       2 :     7.41%:
|Midwest States            :       3 :    11.11%:
|Southwest States          :       2 :     7.41%:
|Pacific Northwest States  :       2 :     7.41%:
|Pacific Southwest States  :       1 :     3.70%:
|International Markets     :       1 :     3.70%:
|                          :         :          :
|--------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT   :         :          :
|Building                  :       4 :    28.57%:
|Land                      :       3 :    21.43%:
|Both                      :       7 :    50.00%:
|--------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV. :         :          :
|Commercial                :       9 :    20.00%:
|Industrial                :      10 :    22.22%:
|Residential               :       5 :    11.11%:
|Office                    :      10 :    22.22%:
|Resort/Recreation         :       2 :     4.44%:
|Shopping Centers          :       7 :    15.56%:
|Other                     :       2 :     4.44%:
|--------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS :         :          :
|AIA                       :       3 :     7.14%:
|APA                       :       2 :     4.76%:
|ASCE                      :       2 :     4.76%:
|ASLA                      :       2 :     4.76%:
|ARRDA                     :       1 :     2.38%:
|ULI                       :      10 :    23.81%:
|NAHB                      :       4 :     9.52%:
|NAIOP                     :      14 :    33.33%:
|Other                     :       4 :     9.52%:
|--------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :        :          :
|0 - 10                    :       4 :    28.57%:
|11 -20                    :       5 :    35.71%:
|21 - 30                   :       1 :     7.14%:
|31 - 40                   :       0 :     0.00%:
|41 - 50                   :       1 :     7.14%:
|Over 51                   :       3 :    21.43%:
|--------------------------:---------:----------:
```

```
|-------------------------:---------:----------:
|QUESTION 6--ACRES        :         :          :
|0 - 30                   :       0 :     0.00%:
|30 - 100                 :       0 :     0.00%:
|101 - 200                :       0 :     0.00%:
|201 - 300                :      14 :   100.00%:
|301 - 500                :       0 :     0.00%:
|Over 500                 :       0 :     0.00%:
|-------------------------:---------:----------:
|QUESTION 7--$ VOLUME     :         :          :
|0 - $100,000             :       0 :     0.00%:
|$100,00 - $250,000       :       0 :     0.00%:
|$250,000 - $500,000      :       0 :     0.00%:
|$500,000 - 1 million     :       0 :     0.00%:
|1 million - 2 million    :       1 :     7.14%:
|2 million - 5 million    :       1 :     7.14%:
|Over 5 million dollars   :      12 :    85.71%:
|-------------------------:---------:----------:
|QUESTION 8--USE LA'S     :         :          :
|Yes                      :      14 :   100.00%:
|No                       :       0 :     0.00%:
|-------------------------:---------:----------:
|QUESTION 13--STAGES      :         :          :
|Early                    :       6 :    42.86%:
|Middle                   :       4 :    28.57%:
|Late                     :       1 :     7.14%:
|-------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:       :          :
|Yes                      :       2 :    14.29%:
|No                       :      12 :    85.71%:
|-------------------------:---------:----------:
|QUESTION 15--SUPERVISORY :         :          :
|Never                    :       1 :     7.14%:
|Almost Never             :       2 :    14.29%:
|Sometimes                :       4 :    28.57%:
|Almost Always            :       5 :    35.71%:
|Always                   :       1 :     7.14%:
|-------------------------:---------:----------:
|QUESTION 16--RATING      :         :          :
|Inferior                 :       0 :     0.00%:
|Fair                     :       3 :    21.43%:
|Good                     :       7 :    50.00%:
|Excellent                :       3 :    21.43%:
|No Basis For Judgement   :       1 :     7.14%:
|-------------------------:---------:----------:
|QUESTION 17--VALUE       :         :          :
|Of No Value              :       0 :     0.00%:
|Minimal Value            :       0 :     0.00%:
|Moderate Value           :       3 :    21.43%:
|Considerable Value       :       8 :    57.14%:
|Major Value              :       3 :    21.43%:
|-------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= 201 - 300 Acres             H  I  R  E  D                                  QUESTION # 9
                                      |S  E  R  V  I  C  E  S                   :Raw Data :Percentages :
Response using variable:      14      |------------------------------------------:---------:------------:
                                      |Design Development/Site Planning          :     12 :      85.71%:
                                      |Agency Consul./Review Approv./Zoning Assist. :   7 :      50.00%:
TOTAL # SENT         1283             |Project Financing/Project Budgeting       :      2 :      14.29%:
TOTAL # RETURNED      318             |Site Analysis                             :      8 :      57.14%:
RESPONSE RATE      24.79%             |Erosion Control                           :      4 :      28.57%:
                                      |                                          :        :            :
TOTAL # OF RESPONSES PER QUESTION     |Storm Drainage                            :      2 :      14.29%:
Q1=   314 |  Q10=    222 |            |Environmental Studies                     :      2 :      14.29%:
Q2=   309 |  Q11=    233 |            |Financial Analysis                        :      0 :       0.00%:
Q3=   317 |  Q12=    187 |            |Project Development Scheduling            :      1 :       7.14%:
Q4=   317 |  Q13=    270 |            |Marketing/Feasibility Studies             :      1 :       7.14%:
Q5=   314 |  Q14=    315 |            |                                          :        :            :
Q6=   312 |  Q15=    305 |            |Post Construction/Evaluation              :      3 :      21.43%:
Q7=   309 |  Q16=    301 |            |Schematic/Preliminary Land Planning       :      8 :      57.14%:
Q8=   313 |  Q17=    306 |            |Pre-Design                                :      4 :      28.57%:
Q9=   293 |              |            |Site Selection                            :      1 :       7.14%:
==========|==============|            |Planting Plans                            :     14 :     100.00%:
                                      |                                          :        :            :
                                      |Master Plans                              :     10 :      71.43%:
                                      |Preliminary Construction Cost Estimating  :      3 :      21.43%:
                                      |Irrigation                                :     11 :      78.57%:
                                      |Feasibility Studies                       :      2 :      14.29%:
                                      |Presentation Graphics/Public Presentations :    11 :      78.57%:
                                      |                                          :        :            :
                                      |Design Team Coordination                  :      2 :      14.29%:
                                      |Construction Documents                    :      5 :      35.71%:
                                      |Site Layout                               :      5 :      35.71%:
                                      |Program Development                      :      2 :      14.29%:
                                      |Lighting design                           :      5 :      35.71%:
                                      |                                          :        :            :
                                      |Bidding(Negotiations)                     :      4 :      28.57%:
                                      |Project Administration                    :      5 :      35.71%:
                                      |Details, Materials, Specifications        :      9 :      64.29%:
                                      |Road Alignment and Profiles               :      2 :      14.29%:
                                      |Life Cycle/Value Analysis                 :      2 :      14.29%:
                                      |                                          :        :            :
                                      |Grading and Drainage Details              :      2 :      14.29%:
                                      |Sewer Collection                          :      0 :       0.00%:
                                      |Water Distribution                        :      0 :       0.00%:
                                      |Construction Administration               :      2 :      14.29%:
                                      |Maintenance Reviews and Scheduling        :      5 :      35.71%:
                                      |Other, please explain                     :      0 :       0.00%:
                                      |------------------------------------------:---------:------------:
```

```
VARIABLE= 201 - 300 Acres                 P  E  R  C  E  I  V  E                        QUESTION # 10
                                          |S  E  R  V  I  C  E  S                      :Raw Data :Percentages :
                                          |--------------------------------------------:---------:------------:
                                          |Design Development/Site Planning            :       9 :      64.29%:
                                          |Agency Consul./Review Approv./Zoning Assist. :      6 :      42.86%:
                                          |Project Financing/Project Budgeting          :       2 :      14.29%:
                                          |Site Analysis                               :       5 :      35.71%:
                                          |Erosion Control                             :       5 :      35.71%:
                                          |                                            :         :            :
                                          |Storm Drainage                              :       2 :      14.29%:
                                          |Environmental Studies                       :       4 :      28.57%:
                                          |Financial Analysis                          :       0 :       0.00%:
                                          |Project Development Scheduling              :       0 :       0.00%:
                                          |Marketing/Feasibility Studies               :       0 :       0.00%:
                                          |                                            :         :            :
                                          |Post Construction/Evaluation                :       6 :      42.86%:
                                          |Schematic/Preliminary Land Planning         :       7 :      50.00%:
                                          |Pre-Design                                  :       4 :      28.57%:
                                          |Site Selection                              :       2 :      14.29%:
                                          |Planting Plans                              :      10 :      71.43%:
                                          |                                            :         :            :
                                          |Master Plans                                :       7 :      50.00%:
                                          |Preliminary Construction Cost Estimating    :       3 :      21.43%:
                                          |Irrigation                                  :       9 :      64.29%:
                                          |Feasibility Studies                         :       2 :      14.29%:
                                          |Presentation Graphics/Public Presentations  :       7 :      50.00%:
                                          |                                            :         :            :
                                          |Design Team Coordination                    :       3 :      21.43%:
                                          |Construction Documents                      :       6 :      42.86%:
                                          |Site Layout                                 :       4 :      28.57%:
                                          |Program Development                        :      1 :      7.14%:
                                          |Lighting design                             :       4 :      28.57%:
                                          |                                            :         :            :
                                          |Bidding(Negotiations)                       :       4 :      28.57%:
                                          |Project Administration                      :       2 :      14.29%:
                                          |Details, Materials, Specifications          :       6 :      42.86%:
                                          |Road Alignment and Profiles                 :       2 :      14.29%:
                                          |Life Cycle/Value Analysis                   :       3 :      21.43%:
                                          |                                            :         :            :
                                          |Grading and Drainage Details                :       4 :      28.57%:
                                          |Sewer Collection                            :       0 :       0.00%:
                                          |Water Distribution                          :       0 :       0.00%:
                                          |Construction Administration                 :       2 :      14.29%:
                                          |Maintenance Reviews and Scheduling          :       5 :      35.71%:
                                          |Other, please explain                       :       0 :       0.00%:
                                          |--------------------------------------------:---------:------------:
```

```
VARIABLE= 201 - 300 Acres                 P  R  O  V  I  D  E                                 QUESTION # 11
                                          |S  E  R  V  I  C  E  S                       :Raw Data :Percentages :
                                          |-----------------------------------------------:---------:------------:
                                          |Design Development/Site Planning               :       9 :     64.29%:
                                          |Agency Consul./Review Approv./Zoning Assist.   :       5 :     35.71%:
                                          |Project Financing/Project Budgeting            :       2 :     14.29%:
                                          |Site Analysis                                  :       6 :     42.86%:
                                          |Erosion Control                                :       5 :     35.71%:
                                          |                                               :         :           :
                                          |Storm Drainage                                 :       3 :     21.43%:
                                          |Environmental Studies                          :       4 :     28.57%:
                                          |Financial Analysis                             :       1 :      7.14%:
                                          |Project Development Scheduling                 :       0 :      0.00%:
                                          |Marketing/Feasibility Studies                  :       0 :      0.00%:
                                          |                                               :         :           :
                                          |Post Construction/Evaluation                   :       5 :     35.71%:
                                          |Schematic/Preliminary Land Planning            :       6 :     42.86%:
                                          |Pre-Design                                     :       3 :     21.43%:
                                          |Site Selection                                 :       2 :     14.29%:
                                          |Planting Plans                                 :       8 :     57.14%:
                                          |                                               :         :           :
                                          |Master Plans                                   :       8 :     57.14%:
                                          |Preliminary Construction Cost Estimating       :       5 :     35.71%:
                                          |Irrigation                                     :       8 :     57.14%:
                                          |Feasibility Studies                            :       2 :     14.29%:
                                          |Presentation Graphics/Public Presentations     :       7 :     50.00%:
                                          |                                               :         :           :
                                          |Design Team Coordination                       :       2 :     14.29%:
                                          |Construction Documents                         :       5 :     35.71%:
                                          |Site Layout                                    :       3 :     21.43%:
                                          |Program Development                          :       2 :     14.29%:
                                          |Lighting design                                :       2 :     14.29%:
                                          |                                               :         :           :
                                          |Bidding(Negotiations)                          :       4 :     28.57%:
                                          |Project Administration                         :       2 :     14.29%:
                                          |Details, Materials, Specifications             :       6 :     42.86%:
                                          |Road Alignment and Profiles                    :       2 :     14.29%:
                                          |Life Cycle/Value Analysis                      :       4 :     28.57%:
                                          |                                               :         :           :
                                          |Grading and Drainage Details                   :       4 :     28.57%:
                                          |Sewer Collection                               :       1 :      7.14%:
                                          |Water Distribution                             :       1 :      7.14%:
                                          |Construction Administration                    :       1 :      7.14%:
                                          |Maintenance Reviews and Scheduling             :       6 :     42.86%:
                                          |Other, please explain                          :       0 :      0.00%:
                                          |-----------------------------------------------:---------:------------:
```

VARIABLE= 201 - 300 Acres

QUESTION # 12

IMPROVE SERVICES	Raw Data	Percentages
Design Development/Site Planning	3	21.43%
Agency Consul./Review Approv./Zoning Assist.	2	14.29%
Project Financing/Project Budgeting	3	21.43%
Site Analysis	3	21.43%
Erosion Control	1	7.14%
Storm Drainage	0	0.00%
Environmental Studies	2	14.29%
Financial Analysis	0	0.00%
Project Development Scheduling	0	0.00%
Marketing/Feasibility Studies	1	7.14%
Post Construction/Evaluation	3	21.43%
Schematic/Preliminary Land Planning	2	14.29%
Pre-Design	1	7.14%
Site Selection	1	7.14%
Planting Plans	4	28.57%
Master Plans	4	28.57%
Preliminary Construction Cost Estimating	2	14.29%
Irrigation	3	21.43%
Feasibility Studies	2	14.29%
Presentation Graphics/Public Presentations	3	21.43%
Design Team Coordination	1	7.14%
Construction Documents	2	14.29%
Site Layout	3	21.43%
Program Development	2	14.29%
Lighting design	1	7.14%
Bidding(Negotiations)	1	7.14%
Project Administration	2	14.29%
Details, Materials, Specifications	2	14.29%
Road Alignment and Profiles	2	14.29%
Life Cycle/Value Analysis	3	21.43%
Grading and Drainage Details	2	14.29%
Sewer Collection	0	0.00%
Water Distribution	0	0.00%
Construction Administration	1	7.14%
Maintenance Reviews and Scheduling	2	14.29%
Other, please explain	0	0.00%

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

```
VARIABLE= 301 - 500 Acres

Response using variable:        23

TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
|=========================:=========:==========:
|QUESTIONS                :Raw Data :Percentage:
|=========================:=========:==========:
|QUESTION 1 --REGIONS     :         :          :
|Northeast States         :     12 :    20.00%:
|Southeast States         :     16 :    26.67%:
|Great Lake States        :      6 :    10.00%:
|Midwest States           :      5 :     8.33%:
|Southwest States         :      9 :    15.00%:
|Pacific Northwest States :      3 :     5.00%:
|Pacific Southwest States :      9 :    15.00%:
|International Markets    :      0 :     0.00%:
|                         :         :          :
|-------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT  :         :          :
|Building                 :      4 :    17.39%:
|Land                     :      2 :     8.70%:
|Both                     :     17 :    73.91%:
|-------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV.:         :          :
|Commercial               :     21 :    21.65%:
|Industrial               :     17 :    17.53%:
|Residential              :     14 :    14.43%:
|Office                   :     22 :    22.68%:
|Resort/Recreation        :      6 :     6.19%:
|Shopping Centers         :     16 :    16.49%:
|Other                    :      1 :     1.03%:
|-------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS :        :          :
|AIA                      :      7 :    10.29%:
|APA                      :      4 :     5.88%:
|ASCE                     :      2 :     2.94%:
|ASLA                     :      0 :     0.00%:
|ARROA                    :      0 :     0.00%:
|ULI                      :     18 :    26.47%:
|NAHB                     :     11 :    16.18%:
|NAIOP                    :     21 :    30.88%:
|Other                    :      5 :     7.35%:
|-------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :       :          :
|0 - 10                   :      2 :     8.70%:
|11 -20                   :      7 :    30.43%:
|21 - 30                  :      9 :    39.13%:
|31 - 40                  :      2 :     8.70%:
|41 - 50                  :      1 :     4.35%:
|Over 51                  :      1 :     4.35%:
|-------------------------:---------:----------:
```

QUESTION 6--ACRES		
0 - 30	0	0.00%
30 - 100	0	0.00%
101 - 200	0	0.00%
201 - 300	0	0.00%
301 - 500	23	100.00%
Over 500	0	0.00%
QUESTION 7--$ VOLUME		
0 - $100,000	0	0.00%
$100,00 - $250,000	1	4.35%
$250,000 - $500,000	0	0.00%
$500,000 - 1 million	0	0.00%
1 million - 2 million	0	0.00%
2 million - 5 million	3	13.04%
Over 5 million dollars	19	82.61%
QUESTION 8--USE LA'S		
Yes	23	100.00%
No	0	0.00%
QUESTION 13--STAGES		
Early	15	65.22%
Middle	2	8.70%
Late	3	13.04%
QUESTION 14--EMPLOY IN FIRM		
Yes	5	21.74%
No	17	73.91%
QUESTION 15--SUPERVISORY		
Never	3	13.04%
Almost Never	5	21.74%
Sometimes	12	52.17%
Almost Always	1	4.35%
Always	1	4.35%
QUESTION 16--RATING		
Inferior	0	0.00%
Fair	7	30.43%
Good	9	39.13%
Excellent	6	26.09%
No Basis For Judgement	0	0.00%
QUESTION 17--VALUE		
Of No Value	0	0.00%
Minimal Value	0	0.00%
Moderate Value	6	26.09%
Considerable Value	12	52.17%
Major Value	4	17.39%

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= 301 - 500 Acres

Response using variable:       23


TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
H  I  R  E  D                                                  QUESTION # 9
|S  E  R  V  I  C  E  S                              :Raw Data :Percentages :
|-------------------------------------------:---------:------------:
|Design Development/Site Planning              :      20 :      86.96%:
|Agency Consul./Review Approv./Zoning Assist.  :      10 :      43.48%:
|Project Financing/Project Budgeting           :       2 :       8.70%:
|Site Analysis                                 :      14 :      60.87%:
|Erosion Control                               :       8 :      34.78%:
|                                              :         :            :
|Storm Drainage                                :       5 :      21.74%:
|Environmental Studies                         :       7 :      30.43%:
|Financial Analysis                            :       1 :       4.35%:
|Project Development Scheduling                :       1 :       4.35%:
|Marketing/Feasibility Studies                 :       2 :       8.70%:
|                                              :         :            :
|Post Construction/Evaluation                  :       4 :      17.39%:
|Schematic/Preliminary Land Planning           :      15 :      65.22%:
|Pre-Design                                    :       7 :      30.43%:
|Site Selection                                :       3 :      13.04%:
|Planting Plans                                :      19 :      82.61%:
|                                              :         :            :
|Master Plans                                  :      15 :      65.22%:
|Preliminary Construction Cost Estimating      :      12 :      52.17%:
|Irrigation                                    :      14 :      60.87%:
|Feasibility Studies                           :       5 :      21.74%:
|Presentation Graphics/Public Presentations    :      17 :      73.91%:
|                                              :         :            :
|Design Team Coordination                      :       4 :      17.39%:
|Construction Documents                        :       9 :      39.13%:
|Site Layout                                   :      16 :      69.57%:
|Program Development                         :       5 :     21.74%:
|Lighting design                               :      13 :      56.52%:
|                                              :         :            :
|Bidding(Negotiations)                         :       7 :      30.43%:
|Project Administration                        :       8 :      34.78%:
|Details, Materials, Specifications            :      15 :      65.22%:
|Road Alignment and Profiles                   :       7 :      30.43%:
|Life Cycle/Value Analysis                     :       0 :       0.00%:
|                                              :         :            :
|Grading and Drainage Details                  :       8 :      34.78%:
|Sewer Collection                              :       1 :       4.35%:
|Water Distribution                            :       1 :       4.35%:
|Construction Administration                   :       3 :      13.04%:
|Maintenance Reviews and Scheduling            :       5 :      21.74%:
|Other, please explain                         :       0 :       0.00%:
|-------------------------------------------:---------:------------:
```

VARIABLE= 301 - 500 Acres

PERCEIVE

QUESTION # 10

SERVICES	Raw Data	Percentages
Design Development/Site Planning	17	73.91%
Agency Consul./Review Approv./Zoning Assist.	8	34.78%
Project Financing/Project Budgeting	2	8.70%
Site Analysis	14	60.87%
Erosion Control	12	52.17%
Storm Drainage	5	21.74%
Environmental Studies	10	43.48%
Financial Analysis	0	0.00%
Project Development Scheduling	1	4.35%
Marketing/Feasibility Studies	2	8.70%
Post Construction/Evaluation	5	21.74%
Schematic/Preliminary Land Planning	14	60.87%
Pre-Design	10	43.48%
Site Selection	6	26.09%
Planting Plans	17	73.91%
Master Plans	14	60.87%
Preliminary Construction Cost Estimating	10	43.48%
Irrigation	13	56.52%
Feasibility Studies	6	26.09%
Presentation Graphics/Public Presentations	17	73.91%
Design Team Coordination	6	26.09%
Construction Documents	10	43.48%
Site Layout	14	60.87%
Program Development	8	34.78%
Lighting design	12	52.17%
Bidding(Negotiations)	9	39.13%
Project Administration	9	39.13%
Details, Materials, Specifications	14	60.87%
Road Alignment and Profiles	5	21.74%
Life Cycle/Value Analysis	4	17.39%
Grading and Drainage Details	10	43.48%
Sewer Collection	2	8.70%
Water Distribution	3	13.04%
Construction Administration	6	26.09%
Maintenance Reviews and Scheduling	8	34.78%
Other, please explain	1	4.35%

VARIABLE= 301 - 500 Acres

QUESTION # 11

P R O V I D E

SERVICES	Raw Data	Percentages
Design Development/Site Planning	19	82.61%
Agency Consul./Review Approv./Zoning Assist.	13	56.52%
Project Financing/Project Budgeting	3	13.04%
Site Analysis	16	69.57%
Erosion Control	13	56.52%
Storm Drainage	8	34.78%
Environmental Studies	11	47.83%
Financial Analysis	1	4.35%
Project Development Scheduling	5	21.74%
Marketing/Feasibility Studies	3	13.04%
Post Construction/Evaluation	11	47.83%
Schematic/Preliminary Land Planning	16	69.57%
Pre-Design	13	56.52%
Site Selection	9	39.13%
Planting Plans	18	78.26%
Master Plans	18	78.26%
Preliminary Construction Cost Estimating	13	56.52%
Irrigation	16	69.57%
Feasibility Studies	9	39.13%
Presentation Graphics/Public Presentations	17	73.91%
Design Team Coordination	8	34.78%
Construction Documents	13	56.52%
Site Layout	17	73.91%
Program Development	9	39.13%
Lighting design	13	56.52%
Bidding(Negotiations)	11	47.83%
Project Administration	13	56.52%
Details, Materials, Specifications	16	69.57%
Road Alignment and Profiles	7	30.43%
Life Cycle/Value Analysis	7	30.43%
Grading and Drainage Details	11	47.83%
Sewer Collection	3	13.04%
Water Distribution	4	17.39%
Construction Administration	6	26.09%
Maintenance Reviews and Scheduling	11	47.83%
Other, please explain	1	4.35%

```
VARIABLE= 301 - 500 Acres             I  M  P  R  O  V  E                          QUESTION # 12
                                      |S  E  R  V  I  C  E  S              :Raw Data :Percentages :
                                      |-----------------------------------------:---------:------------:
                                      |Design Development/Site Planning          :       3 :     13.04%:
                                      |Agency Consul./Review Approv./Zoning Assist. :    5 :     21.74%:
                                      |Project Financing/Project Budgeting       :       8 :     34.78%:
                                      |Site Analysis                             :       7 :     30.43%:
                                      |Erosion Control                           :       6 :     26.09%:
                                      |                                          :         :           :
                                      |Storm Drainage                            :       4 :     17.39%:
                                      |Environmental Studies                     :       3 :     13.04%:
                                      |Financial Analysis                        :       4 :     17.39%:
                                      |Project Development Scheduling            :       4 :     17.39%:
                                      |Marketing/Feasibility Studies             :       6 :     26.09%:
                                      |                                          :         :           :
                                      |Post Construction/Evaluation              :       5 :     21.74%:
                                      |Schematic/Preliminary Land Planning       :       4 :     17.39%:
                                      |Pre-Design                                :       3 :     13.04%:
                                      |Site Selection                            :       5 :     21.74%:
                                      |Planting Plans                            :       3 :     13.04%:
                                      |                                          :         :           :
                                      |Master Plans                              :       6 :     26.09%:
                                      |Preliminary Construction Cost Estimating  :       9 :     39.13%:
                                      |Irrigation                                :       3 :     13.04%:
                                      |Feasibility Studies                       :       8 :     34.78%:
                                      |Presentation Graphics/Public Presentations :      5 :     21.74%:
                                      |                                          :         :           :
                                      |Design Team Coordination                  :       7 :     30.43%:
                                      |Construction Documents                    :       3 :     13.04%:
                                      |Site Layout                               :       4 :     17.39%:
                                      |Program Development                       :       5 :     21.74%:
                                      |Lighting design                           :       6 :     26.09%:
                                      |                                          :         :           :
                                      |Bidding(Negotiations)                     :       5 :     21.74%:
                                      |Project Administration                    :       8 :     34.78%:
                                      |Details, Materials, Specifications        :       3 :     13.04%:
                                      |Road Alignment and Profiles               :       4 :     17.39%:
                                      |Life Cycle/Value Analysis                 :       6 :     26.09%:
                                      |                                          :         :           :
                                      |Grading and Drainage Details              :       6 :     26.09%:
                                      |Sewer Collection                          :       2 :      8.70%:
                                      |Water Distribution                        :       3 :     13.04%:
                                      |Construction Administration               :       5 :     21.74%:
                                      |Maintenance Reviews and Scheduling        :       5 :     21.74%:
                                      |Other, please explain                     :       1 :      4.35%:
                                      |-----------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

D A T A

VARIABLE= Over 500 Acres

Response using variable: 52

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	21	13.46%
Southeast States	31	19.87%
Great Lake States	19	12.18%
Midwest States	14	8.97%
Southwest States	23	14.74%
Pacific Northwest States	12	7.69%
Pacific Southwest States	27	17.31%
International Markets	9	5.77%
QUESTION 2--DEVELOPMENT		
Building	7	13.46%
Land	6	11.54%
Both	39	75.00%
QUESTION 3--SPECIFIC DEV.		
Commercial	37	19.27%
Industrial	37	19.27%
Residential	30	15.63%
Office	37	19.27%
Resort/Recreation	18	9.38%
Shopping Centers	25	13.02%
Other	8	4.17%
QUESTION 4--ORGANIZATIONS		
AIA	19	13.57%
APA	7	5.00%
ASCE	13	9.29%
ASLA	10	7.14%
ARRDA	6	4.29%
ULI	31	22.14%
NANB	8	5.71%
NAIOP	35	25.00%
Other	11	7.86%
QUESTION 5--YRS EXPERIENCE		
0 - 10	5	9.62%
11 -20	15	28.85%
21 - 30	16	30.77%
31 - 40	3	5.77%
41 - 50	2	3.85%
Over 51	11	21.15%

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :       0 :     0.00%:
|30 - 100                  :       0 :     0.00%:
|101 - 200                 :       0 :     0.00%:
|201 - 300                 :       0 :     0.00%:
|301 - 500                 :       0 :     0.00%:
|Over 500                  :      52 :   100.00%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :       1 :     1.92%:
|$100,00 - $250,000        :       0 :     0.00%:
|$250,000 - $500,000       :       0 :     0.00%:
|$500,000 - 1 million      :       1 :     1.92%:
|1 million - 2 million     :       2 :     3.85%:
|2 million - 5 million     :       4 :     7.69%:
|Over 5 million dollars    :      40 :    76.92%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :      49 :    94.23%:
|No                        :       3 :     5.77%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :      30 :    57.69%:
|Middle                    :       9 :    17.31%:
|Late                      :       7 :    13.46%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :      14 :    26.92%:
|No                        :      38 :    73.08%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :      16 :    30.77%:
|Almost Never              :       8 :    15.38%:
|Sometimes                 :      13 :    25.00%:
|Almost Always             :       5 :     9.62%:
|Always                    :      10 :    19.23%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :       1 :     1.92%:
|Fair                      :       6 :    11.54%:
|Good                      :      26 :    50.00%:
|Excellent                 :      13 :    25.00%:
|No Basis For Judgement    :       2 :     3.85%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :       0 :     0.00%:
|Minimal Value             :       4 :     7.69%:
|Moderate Value            :       7 :    13.46%:
|Considerable Value        :      22 :    42.31%:
|Major Value               :      16 :    30.77%:
|--------------------------:---------:----------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Over 500 Acres

Response using variable: 52

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

HIRED SERVICES — QUESTION # 9

SERVICES	Raw Data	Percentages
Design Development/Site Planning	40	76.92%
Agency Consul./Review Approv./Zoning Assist.	29	55.77%
Project Financing/Project Budgeting	14	26.92%
Site Analysis	31	59.62%
Erosion Control	27	51.92%
Storm Drainage	14	26.92%
Environmental Studies	19	36.54%
Financial Analysis	6	11.54%
Project Development Scheduling	14	26.92%
Marketing/Feasibility Studies	8	15.38%
Post Construction/Evaluation	16	30.77%
Schematic/Preliminary Land Planning	34	65.38%
Pre-Design	30	57.69%
Site Selection	14	26.92%
Planting Plans	45	86.54%
Master Plans	27	51.92%
Preliminary Construction Cost Estimating	23	44.23%
Irrigation	38	73.08%
Feasibility Studies	13	25.00%
Presentation Graphics/Public Presentations	29	55.77%
Design Team Coordination	20	38.46%
Construction Documents	22	42.31%
Site Layout	26	50.00%
Program Development	22	42.31%
Lighting design	22	42.31%
Bidding(Negotiations)	15	28.85%
Project Administration	15	28.85%
Details, Materials, Specifications	28	53.85%
Road Alignment and Profiles	14	26.92%
Life Cycle/Value Analysis	7	13.46%
Grading and Drainage Details	20	38.46%
Sewer Collection	7	13.46%
Water Distribution	7	13.46%
Construction Administration	8	15.38%
Maintenance Reviews and Scheduling	20	38.46%
Other, please explain	1	1.92%

```
VARIABLE= Over 500 Acres          P  E  R  C  E  I  V  E                        QUESTION # 10
                                 |S  E  R  V  I  C  E  S                :Raw Data :Percentages :
                                 |--------------------------------------:---------:------------:
                                 |Design Development/Site Planning       :     27 :     51.92%:
                                 |Agency Consul./Review Approv./Zoning Assist. :  24 :  46.15%:
                                 |Project Financing/Project Budgeting    :      9 :     17.31%:
                                 |Site Analysis                          :     21 :     40.38%:
                                 |Erosion Control                        :     17 :     32.69%:
                                 |                                       :        :           :
                                 |Storm Drainage                         :     10 :     19.23%:
                                 |Environmental Studies                  :     14 :     26.92%:
                                 |Financial Analysis                     :      4 :      7.69%:
                                 |Project Development Scheduling         :      8 :     15.38%:
                                 |Marketing/Feasibility Studies          :      7 :     13.46%:
                                 |                                       :        :           :
                                 |Post Construction/Evaluation           :      8 :     15.38%:
                                 |Schematic/Preliminary Land Planning    :     24 :     46.15%:
                                 |Pre-Design                             :     22 :     42.31%:
                                 |Site Selection                         :     11 :     21.15%:
                                 |Planting Plans                         :     33 :     63.46%:
                                 |                                       :        :           :
                                 |Master Plans                           :     24 :     46.15%:
                                 |Preliminary Construction Cost Estimating :   12 :     23.08%:
                                 |Irrigation                             :     23 :     44.23%:
                                 |Feasibility Studies                    :     12 :     23.08%:
                                 |Presentation Graphics/Public Presentations : 22 :     42.31%:
                                 |                                       :        :           :
                                 |Design Team Coordination               :      9 :     17.31%:
                                 |Construction Documents                 :     15 :     28.85%:
                                 |Site Layout                            :     16 :     30.77%:
                                 |Program Development                   :     14 :     26.92%:
                                 |Lighting design                        :     13 :     25.00%:
                                 |                                       :        :           :
                                 |Bidding(Negotiations)                  :     10 :     19.23%:
                                 |Project Administration                 :      8 :     15.38%:
                                 |Details, Materials, Specifications     :     19 :     36.54%:
                                 |Road Alignment and Profiles            :      6 :     11.54%:
                                 |Life Cycle/Value Analysis              :      3 :      5.77%:
                                 |                                       :        :           :
                                 |Grading and Drainage Details           :     16 :     30.77%:
                                 |Sewer Collection                       :      5 :      9.62%:
                                 |Water Distribution                     :      5 :      9.62%:
                                 |Construction Administration            :      6 :     11.54%:
                                 |Maintenance Reviews and Scheduling     :     12 :     23.08%:
                                 |Other, please explain                  :      2 :      3.85%:
                                 |--------------------------------------:---------:------------:
```

VARIABLE= Over 500 Acres

QUESTION # 11

PROVIDE SERVICES	Raw Data	Percentages
Design Development/Site Planning	33	63.46%
Agency Consul./Review Approv./Zoning Assist.	30	57.69%
Project Financing/Project Budgeting	17	32.69%
Site Analysis	29	55.77%
Erosion Control	29	55.77%
Storm Drainage	18	34.62%
Environmental Studies	22	42.31%
Financial Analysis	9	17.31%
Project Development Scheduling	15	28.85%
Marketing/Feasibility Studies	10	19.23%
Post Construction/Evaluation	19	36.54%
Schematic/Preliminary Land Planning	26	50.00%
Pre-Design	28	53.85%
Site Selection	20	38.46%
Planting Plans	34	65.38%
Master Plans	25	48.08%
Preliminary Construction Cost Estimating	24	46.15%
Irrigation	31	59.62%
Feasibility Studies	18	34.62%
Presentation Graphics/Public Presentations	31	59.62%
Design Team Coordination	21	40.38%
Construction Documents	22	42.31%
Site Layout	22	42.31%
Program Development	23	44.23%
Lighting design	25	48.08%
Bidding(Negotiations)	20	38.46%
Project Administration	22	42.31%
Details, Materials, Specifications	24	46.15%
Road Alignment and Profiles	13	25.00%
Life Cycle/Value Analysis	14	26.92%
Grading and Drainage Details	22	42.31%
Sewer Collection	8	15.38%
Water Distribution	10	19.23%
Construction Administration	13	25.00%
Maintenance Reviews and Scheduling	16	30.77%
Other, please explain	0	0.00%

```
VARIABLE= Over 500 Acres            I  M  P  R  O  V  E                               QUESTION # 12
                                    |S  E  R  V  I  C  E  S                        :Raw Data :Percentages :
                                    |-------------------------------------------:---------:------------:
                                    |Design Development/Site Planning           :       8 :      15.38%:
                                    |Agency Consul./Review Approv./Zoning Assist. :     9 :      17.31%:
                                    |Project Financing/Project Budgeting        :       8 :      15.38%:
                                    |Site Analysis                              :       8 :      15.38%:
                                    |Erosion Control                            :       6 :      11.54%:
                                    |                                           :         :            :
                                    |Storm Drainage                             :       6 :      11.54%:
                                    |Environmental Studies                      :       4 :       7.69%:
                                    |Financial Analysis                         :       5 :       9.62%:
                                    |Project Development Scheduling             :       4 :       7.69%:
                                    |Marketing/Feasibility Studies              :       4 :       7.69%:
                                    |                                           :         :            :
                                    |Post Construction/Evaluation               :       8 :      15.38%:
                                    |Schematic/Preliminary Land Planning        :       7 :      13.46%:
                                    |Pre-Design                                 :       5 :       9.62%:
                                    |Site Selection                             :       6 :      11.54%:
                                    |Planting Plans                             :       5 :       9.62%:
                                    |                                           :         :            :
                                    |Master Plans                               :       7 :      13.46%:
                                    |Preliminary Construction Cost Estimating   :       7 :      13.46%:
                                    |Irrigation                                 :       7 :      13.46%:
                                    |Feasibility Studies                        :       6 :      11.54%:
                                    |Presentation Graphics/Public Presentations :       6 :      11.54%:
                                    |                                           :         :            :
                                    |Design Team Coordination                   :       6 :      11.54%:
                                    |Construction Documents                     :       5 :       9.62%:
                                    |Site Layout                                :       6 :      11.54%:
                                    |Program Development                       :       5 :       9.62%:
                                    |Lighting design                            :       9 :      17.31%:
                                    |                                           :         :            :
                                    |Bidding(Negotiations)                      :       3 :       5.77%:
                                    |Project Administration                     :       7 :      13.46%:
                                    |Details, Materials, Specifications         :       3 :       5.77%:
                                    |Road Alignment and Profiles                :       1 :       1.92%:
                                    |Life Cycle/Value Analysis                  :       7 :      13.46%:
                                    |                                           :         :            :
                                    |Grading and Drainage Details               :       7 :      13.46%:
                                    |Sewer Collection                           :       3 :       5.77%:
                                    |Water Distribution                         :       2 :       3.85%:
                                    |Construction Administration                :       6 :      11.54%:
                                    |Maintenance Reviews and Scheduling         :       3 :       5.77%:
                                    |Other, please explain                      :       0 :       0.00%:
                                    |-------------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= Commercial Developers

Response using variable: 229

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	81	19.71%
Southeast States	106	25.79%
Great Lake States	38	9.25%
Midwest States	39	9.49%
Southwest States	48	11.68%
Pacific Northwest States	23	5.60%
Pacific Southwest States	66	16.06%
International Markets	10	2.43%
QUESTION 2--DEVELOPMENT		
Building	68	29.69%
Land	9	3.93%
Both	146	63.76%
QUESTION 3--SPECIFIC DEV.		
Commercial	229	25.56%
Industrial	171	19.08%
Residential	110	12.28%
Office	198	22.10%
Resort/Recreation	38	4.24%
Shopping Centers	132	14.73%
Other	18	2.01%
QUESTION 4--ORGANIZATIONS		
AIA	48	8.86%
APA	15	2.77%
ASCE	17	3.14%
ASLA	12	2.21%
ARRDA	5	0.92%
ULI	133	24.54%
NAHB	41	7.56%
NAIOP	211	38.93%
Other	60	11.07%
QUESTION 5--YRS EXPERIENCE		
0 - 10	36	15.72%
11 -20	84	36.68%
21 - 30	70	30.57%
31 - 40	13	5.68%
41 - 50	6	2.62%
Over 51	18	7.86%

QUESTION 6--ACRES		
0 - 30	52	22.71%
30 - 100	64	27.95%
101 - 200	42	18.34%
201 - 300	9	3.93%
301 - 500	21	9.17%
Over 500	37	16.16%
QUESTION 7--S VOLUME		
0 - $100,000	1	0.44%
$100,00 - $250,000	2	0.87%
$250,000 - $500,000	2	0.87%
$500,000 - 1 million	7	3.06%
1 million - 2 million	16	6.99%
2 million - 5 million	29	12.66%
Over 5 million dollars	164	71.62%
QUESTION 8--USE LA'S		
Yes	221	96.51%
No	8	3.49%
QUESTION 13--STAGES		
Early	127	55.46%
Middle	42	18.34%
Late	23	10.04%
QUESTION 14--EMPLOY IN FIRM		
Yes	32	13.97%
No	194	84.72%
QUESTION 15--SUPERVISORY		
Never	73	31.88%
Almost Never	33	14.41%
Sometimes	63	27.51%
Almost Never	31	13.54%
Always	23	10.04%
QUESTION 16--RATING		
Inferior	3	1.31%
Fair	56	24.45%
Good	104	45.41%
Excellent	41	17.90%
No Basis For Judgement	11	4.80%
QUESTION 17--VALUE		
Of No Value	1	0.44%
Minimal Value	16	6.99%
Moderate Value	47	20.52%
Considerable Value	112	48.91%
Major Value	44	19.21%

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Commercial Developers

Response using variable: 229

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTION # 9

HIRED SERVICES	Raw Data	Percentages
Design Development/Site Planning	177	77.29%
Agency Consul./Review Approv./Zoning Assist.	116	50.66%
Project Financing/Project Budgeting	51	22.27%
Site Analysis	125	54.59%
Erosion Control	88	38.43%
Storm Drainage	58	25.33%
Environmental Studies	54	23.58%
Financial Analysis	12	5.24%
Project Development Scheduling	32	13.97%
Marketing/Feasibility Studies	18	7.86%
Post Construction/Evaluation	47	20.52%
Schematic/Preliminary Land Planning	134	58.52%
Pre-Design	91	39.74%
Site Selection	27	11.79%
Planting Plans	198	86.46%
Master Plans	123	53.71%
Preliminary Construction Cost Estimating	88	38.43%
Irrigation	149	65.07%
Feasibility Studies	43	18.78%
Presentation Graphics/Public Presentations	130	56.77%
Design Team Coordination	53	23.14%
Construction Documents	90	39.30%
Site Layout	114	49.78%
Program Development	45	19.65%
Lighting design	87	37.99%
Bidding(Negotiations)	72	31.44%
Project Administration	62	27.07%
Details, Materials, Specifications	131	57.21%
Road Alignment and Profiles	55	24.02%
Life Cycle/Value Analysis	21	9.17%
Grading and Drainage Details	77	33.62%
Sewer Collection	20	8.73%
Water Distribution	31	13.54%
Construction Administration	30	13.10%
Maintenance Reviews and Scheduling	64	27.95%
Other, please explain	5	2.18%

VARIABLE= Commercial Developers

PERCEIVE

QUESTION # 10

SERVICES	Raw Data	Percentages
Design Development/Site Planning	123	53.71%
Agency Consul./Review Approv./Zoning Assist.	86	37.55%
Project Financing/Project Budgeting	31	13.54%
Site Analysis	98	42.79%
Erosion Control	81	35.37%
Storm Drainage	52	22.71%
Environmental Studies	57	24.89%
Financial Analysis	10	4.37%
Project Development Scheduling	26	11.35%
Marketing/Feasibility Studies	16	6.99%
Post Construction/Evaluation	43	18.78%
Schematic/Preliminary Land Planning	106	46.29%
Pre-Design	75	32.75%
Site Selection	35	15.28%
Planting Plans	146	63.76%
Master Plans	96	41.92%
Preliminary Construction Cost Estimating	63	27.51%
Irrigation	116	50.66%
Feasibility Studies	37	16.16%
Presentation Graphics/Public Presentations	107	46.72%
Design Team Coordination	37	16.16%
Construction Documents	76	33.19%
Site Layout	88	38.43%
Program Development	41	17.90%
Lighting design	69	30.13%
Bidding(Negotiations)	63	27.51%
Project Administration	52	22.71%
Details, Materials, Specifications	92	40.17%
Road Alignment and Profiles	37	16.16%
Life Cycle/Value Analysis	23	10.04%
Grading and Drainage Details	63	27.51%
Sewer Collection	13	5.68%
Water Distribution	25	10.92%
Construction Administration	30	13.10%
Maintenance Reviews and Scheduling	55	24.02%
Other, please explain	8	3.49%

```
VARIABLE= Commercial Developers        P R O V I D E                                   QUESTION # 11
                                       |S E R V I C E S                            :Raw Data :Percentages :
                                       |-------------------------------------------:---------:------------:
                                       |Design Development/Site Planning           :    136 :      59.39%:
                                       |Agency Consul./Review Approv./Zoning Assist. :  113 :      49.34%:
                                       |Project Financing/Project Budgeting        :     62 :      27.07%:
                                       |Site Analysis                              :    121 :      52.84%:
                                       |Erosion Control                            :    111 :      48.47%:
                                       |                                           :        :            :
                                       |Storm Drainage                             :     73 :      31.88%:
                                       |Environmental Studies                      :     82 :      35.81%:
                                       |Financial Analysis                         :     26 :      11.35%:
                                       |Project Development Scheduling             :     45 :      19.65%:
                                       |Marketing/Feasibility Studies              :     30 :      13.10%:
                                       |                                           :        :            :
                                       |Post Construction/Evaluation               :     70 :      30.57%:
                                       |Schematic/Preliminary Land Planning        :    118 :      51.53%:
                                       |Pre-Design                                 :     95 :      41.48%:
                                       |Site Selection                             :     63 :      27.51%:
                                       |Planting Plans                             :    149 :      65.07%:
                                       |                                           :        :            :
                                       |Master Plans                               :    113 :      49.34%:
                                       |Preliminary Construction Cost Estimating   :     93 :      40.61%:
                                       |Irrigation                                 :    137 :      59.83%:
                                       |Feasibility Studies                        :     60 :      26.20%:
                                       |Presentation Graphics/Public Presentations :    120 :      52.40%:
                                       |                                           :        :            :
                                       |Design Team Coordination                   :     62 :      27.07%:
                                       |Construction Documents                     :     91 :      39.74%:
                                       |Site Layout                                :    108 :      47.16%:
                                       |Program Development                        :     67 :      29.26%:
                                       |Lighting design                            :     96 :      41.92%:
                                       |                                           :        :            :
                                       |Bidding(Negotiations)                      :     86 :      37.55%:
                                       |Project Administration                     :     81 :      35.37%:
                                       |Details, Materials, Specifications         :    111 :      48.47%:
                                       |Road Alignment and Profiles                :     55 :      24.02%:
                                       |Life Cycle/Value Analysis                  :     56 :      24.45%:
                                       |                                           :        :            :
                                       |Grading and Drainage Details               :     80 :      34.93%:
                                       |Sewer Collection                           :     30 :      13.10%:
                                       |Water Distribution                         :     40 :      17.47%:
                                       |Construction Administration                :     51 :      22.27%:
                                       |Maintenance Reviews and Scheduling         :     71 :      31.00%:
                                       |Other, please explain                      :      7 :       3.06%:
                                       |-------------------------------------------:---------:------------:
```

```
VARIABLE= Commercial Developers          I  M  P  R  O  V  E                          QUESTION # 12
                                         |S  E  R  V  I  C  E  S               :Raw Data :Percentages :
                                         |---------------------------------------:---------:------------:
                                         |Design Development/Site Planning       :     38 :      16.59%:
                                         |Agency Consul./Review Approv./Zoning Assist. :  51 :   22.27%:
                                         |Project Financing/Project Budgeting    :     50 :      21.83%:
                                         |Site Analysis                          :     43 :      18.78%:
                                         |Erosion Control                        :     31 :      13.54%:
                                         |                                       :        :            :
                                         |Storm Drainage                         :     30 :      13.10%:
                                         |Environmental Studies                  :     32 :      13.97%:
                                         |Financial Analysis                     :     22 :       9.61%:
                                         |Project Development Scheduling         :     19 :       8.30%:
                                         |Marketing/Feasibility Studies          :     22 :       9.61%:
                                         |                                       :        :            :
                                         |Post Construction/Evaluation           :     25 :      10.92%:
                                         |Schematic/Preliminary Land Planning    :     34 :      14.85%:
                                         |Pre-Design                             :     21 :       9.17%:
                                         |Site Selection                         :     17 :       7.42%:
                                         |Planting Plans                         :     31 :      13.54%:
                                         |                                       :        :            :
                                         |Master Plans                           :     43 :      18.78%:
                                         |Preliminary Construction Cost Estimating :   49 :      21.40%:
                                         |Irrigation                             :     35 :      15.28%:
                                         |Feasibility Studies                    :     35 :      15.28%:
                                         |Presentation Graphics/Public Presentations :  28 :     12.23%:
                                         |                                       :        :            :
                                         |Design Team Coordination               :     33 :      14.41%:
                                         |Construction Documents                 :     26 :      11.35%:
                                         |Site Layout                            :     26 :      11.35%:
                                         |Program Development                   :    27 :     11.79%:
                                         |Lighting design                        :     45 :      19.65%:
                                         |                                       :        :            :
                                         |Bidding(Negotiations)                  :     30 :      13.10%:
                                         |Project Administration                 :     29 :      12.66%:
                                         |Details, Materials, Specifications     :     29 :      12.66%:
                                         |Road Alignment and Profiles            :     14 :       6.11%:
                                         |Life Cycle/Value Analysis              :     35 :      15.28%:
                                         |                                       :        :            :
                                         |Grading and Drainage Details           :     30 :      13.10%:
                                         |Sewer Collection                       :     11 :       4.80%:
                                         |Water Distribution                     :     16 :       6.99%:
                                         |Construction Administration            :     25 :      10.04%:
                                         |Maintenance Reviews and Scheduling     :     23 :      10.04%:
                                         |Other, please explain                  :      7 :       3.06%:
                                         |---------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

```
VARIABLE= Industrial Developers

Response using variable:      213

TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
|==========================:=========:==========:
|QUESTIONS                 :Raw Data :Percentage:
|==========================:=========:==========:
|QUESTION 1 --REGIONS      :         :          :
|Northeast States          :      73 :    19.73%:
|Southeast States          :      90 :    24.32%:
|Great Lake States         :      35 :     9.46%:
|Midwest States            :      33 :     8.92%:
|Southwest States          :      40 :    10.81%:
|Pacific Northwest States  :      22 :     5.95%:
|Pacific Southwest States  :      69 :    18.65%:
|International Markets     :       8 :     2.16%:
|                          :         :          :
|--------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT   :         :          :
|Building                  :      61 :    28.64%:
|Land                      :      11 :     5.16%:
|Both                      :     136 :    63.85%:
|--------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV. :         :          :
|Commercial                :     171 :    21.48%:
|Industrial                :     213 :    26.76%:
|Residential               :      88 :    11.06%:
|Office                    :     178 :    22.36%:
|Resort/Recreation         :      28 :     3.52%:
|Shopping Centers          :     103 :    12.94%:
|Other                     :      15 :     1.88%:
|--------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS :         :          :
|AIA                       :      40 :     7.92%:
|APA                       :      17 :     3.37%:
|ASCE                      :      18 :     3.56%:
|ASLA                      :      13 :     2.57%:
|ARROA                     :       2 :     0.40%:
|ULI                       :     125 :    24.75%:
|NANB                      :      32 :     6.34%:
|NAIOP                     :     200 :    39.60%:
|Other                     :      58 :    11.49%:
|--------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :        :          :
|0 - 10                    :      37 :    17.37%:
|11 -20                    :      71 :    33.33%:
|21 - 30                   :      64 :    30.05%:
|31 - 40                   :      15 :     7.04%:
|41 - 50                   :       8 :     3.76%:
|Over 51                   :      16 :     7.51%:
|--------------------------:---------:----------:
```

QUESTION 6--ACRES		
0 - 30	45	21.13%
30 - 100	59	27.70%
101 - 200	41	19.25%
201 - 300	10	4.69%
301 - 500	17	7.98%
Over 500	37	17.37%
QUESTION 7--$ VOLUME		
0 - $100,000	4	1.88%
$100,00 - $250,000	2	0.94%
$250,000 - $500,000	3	1.41%
$500,000 - 1 million	7	3.29%
1 million - 2 million	18	8.45%
2 million - 5 million	29	13.62%
Over 5 million dollars	144	67.61%
QUESTION 8--USE LA'S		
Yes	202	94.84%
No	11	5.16%
QUESTION 13--STAGES		
Early	121	56.81%
Middle	34	15.96%
Late	27	12.68%
QUESTION 14--EMPLOY IN FIRM		
Yes	25	11.74%
No	185	86.85%
QUESTION 15--SUPERVISORY		
Never	72	33.80%
Almost Never	32	15.02%
Sometimes	51	23.94%
Almost Never	27	12.68%
Always	23	10.80%
QUESTION 16--RATING		
Inferior	3	1.41%
Fair	50	23.47%
Good	103	48.36%
Excellent	37	17.37%
No Basis For Judgement	9	4.23%
QUESTION 17--VALUE		
Of No Value	1	0.47%
Minimal Value	13	6.10%
Moderate Value	42	19.72%
Considerable Value	106	49.77%
Major Value	41	19.25%

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Industrial Developers

Response using variable: 213

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTION # 9

HIRED SERVICES	Raw Data	Percentages
Design Development/Site Planning	160	75.12%
Agency Consul./Review Approv./Zoning Assist.	99	46.48%
Project Financing/Project Budgeting	40	18.78%
Site Analysis	111	52.11%
Erosion Control	79	37.09%
Storm Drainage	46	21.60%
Environmental Studies	49	23.00%
Financial Analysis	10	4.69%
Project Development Scheduling	26	12.21%
Marketing/Feasibility Studies	15	7.04%
Post Construction/Evaluation	45	21.13%
Schematic/Preliminary Land Planning	113	53.05%
Pre-Design	73	34.27%
Site Selection	23	10.80%
Planting Plans	181	84.98%
Master Plans	112	52.58%
Preliminary Construction Cost Estimating	70	32.86%
Irrigation	138	64.79%
Feasibility Studies	35	16.43%
Presentation Graphics/Public Presentations	120	56.34%
Design Team Coordination	44	20.66%
Construction Documents	75	35.21%
Site Layout	96	45.07%
Program Development	38	17.84%
Lighting design	73	34.27%
Bidding(Negotiations)	58	27.23%
Project Administration	48	22.54%
Details, Materials, Specifications	107	50.23%
Road Alignment and Profiles	47	22.07%
Life Cycle/Value Analysis	16	7.51%
Grading and Drainage Details	58	27.23%
Sewer Collection	16	7.51%
Water Distribution	24	11.27%
Construction Administration	22	10.33%
Maintenance Reviews and Scheduling	62	29.11%
Other, please explain	4	1.88%

VARIABLE= Industrial Developers

PERCEIVE

QUESTION # 10

SERVICES	Raw Data	Percentages
Design Development/Site Planning	109	51.17%
Agency Consul./Review Approv./Zoning Assist.	72	33.80%
Project Financing/Project Budgeting	28	13.15%
Site Analysis	88	41.31%
Erosion Control	76	35.68%
Storm Drainage	45	21.13%
Environmental Studies	47	22.07%
Financial Analysis	8	3.76%
Project Development Scheduling	18	8.45%
Marketing/Feasibility Studies	12	5.63%
Post Construction/Evaluation	45	21.13%
Schematic/Preliminary Land Planning	87	40.85%
Pre-Design	70	32.86%
Site Selection	32	15.02%
Planting Plans	134	62.91%
Master Plans	86	40.38%
Preliminary Construction Cost Estimating	56	26.29%
Irrigation	110	51.64%
Feasibility Studies	31	14.55%
Presentation Graphics/Public Presentations	96	45.07%
Design Team Coordination	34	15.96%
Construction Documents	63	29.58%
Site Layout	77	36.15%
Program Development	38	17.84%
Lighting design	64	30.05%
Bidding(Negotiations)	52	24.41%
Project Administration	40	18.78%
Details, Materials, Specifications	80	37.56%
Road Alignment and Profiles	33	15.49%
Life Cycle/Value Analysis	23	10.80%
Grading and Drainage Details	56	26.29%
Sewer Collection	9	4.23%
Water Distribution	20	9.39%
Construction Administration	20	9.39%
Maintenance Reviews and Scheduling	51	23.94%
Other, please explain	6	2.82%

VARIABLE= Industrial Developers

PROVIDE

QUESTION # 11

SERVICES	Raw Data	Percentages
Design Development/Site Planning	118	55.40%
Agency Consul./Review Approv./Zoning Assist.	102	47.89%
Project Financing/Project Budgeting	54	25.35%
Site Analysis	112	52.58%
Erosion Control	102	47.89%
Storm Drainage	64	30.05%
Environmental Studies	73	34.27%
Financial Analysis	24	11.27%
Project Development Scheduling	38	17.84%
Marketing/Feasibility Studies	25	11.74%
Post Construction/Evaluation	68	31.92%
Schematic/Preliminary Land Planning	100	46.95%
Pre-Design	88	41.31%
Site Selection	56	26.29%
Planting Plans	134	62.91%
Master Plans	100	46.95%
Preliminary Construction Cost Estimating	83	38.97%
Irrigation	124	58.22%
Feasibility Studies	55	25.82%
Presentation Graphics/Public Presentations	112	52.58%
Design Team Coordination	53	24.88%
Construction Documents	75	35.21%
Site Layout	91	42.72%
Program Development	60	28.17%
Lighting design	85	39.91%
Bidding(Negotiations)	73	34.27%
Project Administration	69	32.39%
Details, Materials, Specifications	97	45.54%
Road Alignment and Profiles	50	23.47%
Life Cycle/Value Analysis	52	24.41%
Grading and Drainage Details	74	34.74%
Sewer Collection	24	11.27%
Water Distribution	35	16.43%
Construction Administration	38	17.84%
Maintenance Reviews and Scheduling	66	30.99%
Other, please explain	5	2.35%

```
VARIABLE= Industrial Developers     I  M  P  R  O  V  E                                QUESTION # 12
                                    |S  E  R  V  I  C  E  S                       :Raw Data :Percentages :
                                    |---------------------------------------------:---------:------------:
                                    |Design Development/Site Planning             :    29 :      13.62%:
                                    |Agency Consul./Review Approv./Zoning Assist. :    40 :      18.78%:
                                    |Project Financing/Project Budgeting          :    42 :      19.72%:
                                    |Site Analysis                                :    38 :      17.84%:
                                    |Erosion Control                              :    27 :      12.68%:
                                    |                                             :       :            :
                                    |Storm Drainage                               :    22 :      10.33%:
                                    |Environmental Studies                        :    27 :      12.68%:
                                    |Financial Analysis                           :    19 :       8.92%:
                                    |Project Development Scheduling               :    14 :       6.57%:
                                    |Marketing/Feasibility Studies                :    16 :       7.51%:
                                    |                                             :       :            :
                                    |Post Construction/Evaluation                 :    22 :      10.33%:
                                    |Schematic/Preliminary Land Planning          :    29 :      13.62%:
                                    |Pre-Design                                   :    20 :       9.39%:
                                    |Site Selection                               :    13 :       6.10%:
                                    |Planting Plans                               :    28 :      13.15%:
                                    |                                             :       :            :
                                    |Master Plans                                 :    38 :      17.84%:
                                    |Preliminary Construction Cost Estimating     :    45 :      21.13%:
                                    |Irrigation                                   :    28 :      13.15%:
                                    |Feasibility Studies                          :    32 :      15.02%:
                                    |Presentation Graphics/Public Presentations   :    23 :      10.80%:
                                    |                                             :       :            :
                                    |Design Team Coordination                     :    24 :      11.27%:
                                    |Construction Documents                       :    22 :      10.33%:
                                    |Site Layout                                  :    24 :      11.27%:
                                    |Program Development                        :    21 :        9.86%:
                                    |Lighting design                              :    34 :      15.96%:
                                    |                                             :       :            :
                                    |Bidding(Negotiations)                        :    27 :      12.68%:
                                    |Project Administration                       :    24 :      11.27%:
                                    |Details, Materials, Specifications           :    27 :      12.68%:
                                    |Road Alignment and Profiles                  :    14 :       6.57%:
                                    |Life Cycle/Value Analysis                    :    32 :      15.02%:
                                    |                                             :       :            :
                                    |Grading and Drainage Details                 :    26 :      12.21%:
                                    |Sewer Collection                             :     7 :       3.29%:
                                    |Water Distribution                           :    11 :       5.16%:
                                    |Construction Administration                  :    17 :       7.98%:
                                    |Maintenance Reviews and Scheduling           :    24 :      11.27%:
                                    |Other, please explain                        :     6 :       2.82%:
                                    |---------------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= Residential Developers

Response using variable: 126

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	48	19.43%
Southeast States	64	25.91%
Great Lake States	27	10.93%
Midwest States	18	7.29%
Southwest States	37	14.98%
Pacific Northwest States	11	4.45%
Pacific Southwest States	35	14.17%
International Markets	7	2.83%
QUESTION 2--DEVELOPMENT		
Building	32	25.40%
Land	12	9.52%
Both	82	65.08%
QUESTION 3--SPECIFIC DEV.		
Commercial	110	19.78%
Industrial	88	15.83%
Residential	126	22.66%
Office	106	19.06%
Resort/Recreation	34	6.12%
Shopping Centers	78	14.03%
Other	14	2.52%
QUESTION 4--ORGANIZATIONS		
AIA	20	6.35%
APA	15	4.76%
ASCE	8	2.54%
ASLA	12	3.81%
ARROA	6	1.90%
ULI	72	22.86%
NAHB	42	13.33%
NAIOP	110	34.92%
Other	30	9.52%
QUESTION 5--YRS EXPERIENCE		
0 - 10	21	16.67%
11 -20	42	33.33%
21 - 30	20	15.87%
31 - 40	8	6.35%
41 - 50	5	3.97%
Over 51	10	7.94%

```
|-------------------------:---------:----------:
|QUESTION 6--ACRES        :         :          :
|0 - 30                   :      20 :    15.87%:
|30 - 100                 :      33 :    26.19%:
|101 - 200                :      23 :    18.25%:
|201 - 300                :       5 :     3.97%:
|301 - 500                :      14 :    11.11%:
|Over 500                 :      30 :    23.81%:
|-------------------------:---------:----------:
|QUESTION 7--S VOLUME     :         :          :
|0 - $100,000             :       1 :     0.79%:
|$100,00 - $250,000       :       0 :     0.00%:
|$250,000 - $500,000      :       1 :     0.79%:
|$500,000 - 1 million     :       7 :     5.56%:
|1 million - 2 million    :       8 :     6.35%:
|2 million - 5 million    :      19 :    15.08%:
|Over 5 million dollars   :      85 :    67.46%:
|-------------------------:---------:----------:
|QUESTION 8--USE LA'S     :         :          :
|Yes                      :     119 :    94.44%:
|No                       :       7 :     5.56%:
|-------------------------:---------:----------:
|QUESTION 13--STAGES      :         :          :
|Early                    :      73 :    57.94%:
|Middle                   :      21 :    16.67%:
|Late                     :      12 :     9.52%:
|-------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:       :          :
|Yes                      :      26 :    20.63%:
|No                       :      98 :    77.78%:
|-------------------------:---------:----------:
|QUESTION 15--SUPERVISORY :         :          :
|Never                    :      36 :    28.57%:
|Almost Never             :      18 :    14.29%:
|Sometimes                :      41 :    32.54%:
|Almost Never             :      17 :    13.49%:
|Always                   :      11 :     8.73%:
|-------------------------:---------:----------:
|QUESTION 16--RATING      :         :          :
|Inferior                 :       0 :     0.00%:
|Fair                     :      32 :    25.40%:
|Good                     :      54 :    42.86%:
|Excellent                :      24 :    19.05%:
|No Basis For Judgement   :       7 :     5.56%:
|-------------------------:---------:----------:
|QUESTION 17--VALUE       :         :          :
|Of No Value              :       0 :     0.00%:
|Minimal Value            :       8 :     6.35%:
|Moderate Value           :      21 :    16.67%:
|Considerable Value       :      64 :    50.79%:
|Major Value              :      26 :    20.63%:
|-------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Residential Developers

Response using variable:      126


TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
H I R E D                                              QUESTION # 9
|S E R V I C E S                                      :Raw Data :Percentages :
|-----------------------------------------------------:---------:------------:
|Design Development/Site Planning                     :    98 :     77.78%:
|Agency Consul./Review Approv./Zoning Assist.         :    67 :     53.17%:
|Project Financing/Project Budgeting                  :    30 :     23.81%:
|Site Analysis                                        :    69 :     54.76%:
|Erosion Control                                      :    54 :     42.86%:
|                                                     :       :           :
|Storm Drainage                                       :    36 :     28.57%:
|Environmental Studies                                :    31 :     24.60%:
|Financial Analysis                                   :     4 :      3.17%:
|Project Development Scheduling                       :    15 :     11.90%:
|Marketing/Feasibility Studies                        :    10 :      7.94%:
|                                                     :       :           :
|Post Construction/Evaluation                         :    23 :     18.25%:
|Schematic/Preliminary Land Planning                  :    78 :     61.90%:
|Pre-Design                                           :    51 :     40.48%:
|Site Selection                                       :    15 :     11.90%:
|Planting Plans                                       :   103 :     81.75%:
|                                                     :       :           :
|Master Plans                                         :    59 :     46.83%:
|Preliminary Construction Cost Estimating             :    41 :     32.54%:
|Irrigation                                           :    75 :     59.52%:
|Feasibility Studies                                  :    18 :     14.29%:
|Presentation Graphics/Public Presentations           :    73 :     57.94%:
|                                                     :       :           :
|Design Team Coordination                             :    27 :     21.43%:
|Construction Documents                               :    40 :     31.75%:
|Site Layout                                          :    63 :     50.00%:
|Program Development                                :    28 :    22.22%:
|Lighting design                                      :    44 :     34.92%:
|                                                     :       :           :
|Bidding(Negotiations)                                :    29 :     23.02%:
|Project Administration                               :    27 :     21.43%:
|Details, Materials, Specifications                   :    64 :     50.79%:
|Road Alignment and Profiles                          :    29 :     23.02%:
|Life Cycle/Value Analysis                            :     9 :      7.14%:
|                                                     :       :           :
|Grading and Drainage Details                         :    44 :     34.92%:
|Sewer Collection                                     :    10 :      7.94%:
|Water Distribution                                   :    17 :     13.49%:
|Construction Administration                          :    10 :      7.94%:
|Maintenance Reviews and Scheduling                   :    27 :     21.43%:
|Other, please explain                                :     0 :      0.00%:
|-----------------------------------------------------:---------:------------:
```

```
VARIABLE= Residential Developers          P E R C E I V E                             QUESTION # 10
                                          |S E R V I C E S                       :Raw Data :Percentages :
                                          |--------------------------------------:---------:------------:
                                          |Design Development/Site Planning      :    75 :     59.52%:
                                          |Agency Consul./Review Approv./Zoning Assist. :    54 :     42.86%:
                                          |Project Financing/Project Budgeting   :    21 :     16.67%:
                                          |Site Analysis                         :    60 :     47.62%:
                                          |Erosion Control                       :    48 :     38.10%:
                                          |                                      :       :           :
                                          |Storm Drainage                        :    27 :     21.43%:
                                          |Environmental Studies                 :    32 :     25.40%:
                                          |Financial Analysis                    :     7 :      5.56%:
                                          |Project Development Scheduling        :    17 :     13.49%:
                                          |Marketing/Feasibility Studies         :     8 :      6.35%:
                                          |                                      :       :           :
                                          |Post Construction/Evaluation          :    28 :     22.22%:
                                          |Schematic/Preliminary Land Planning   :    66 :     52.38%:
                                          |Pre-Design                            :    47 :     37.30%:
                                          |Site Selection                        :    25 :     19.84%:
                                          |Planting Plans                        :    87 :     69.05%:
                                          |                                      :       :           :
                                          |Master Plans                          :    53 :     42.06%:
                                          |Preliminary Construction Cost Estimating :    37 :     29.37%:
                                          |Irrigation                            :    63 :     50.00%:
                                          |Feasibility Studies                   :    20 :     15.87%:
                                          |Presentation Graphics/Public Presentations :    61 :     48.41%:
                                          |                                      :       :           :
                                          |Design Team Coordination              :    22 :     17.46%:
                                          |Construction Documents                :    35 :     27.78%:
                                          |Site Layout                           :    53 :     42.06%:
                                          |Program Development                  :    24 :    19.05%:
                                          |Lighting design                       :    38 :     30.16%:
                                          |                                      :       :           :
                                          |Bidding(Negotiations)                 :    30 :     23.81%:
                                          |Project Administration                :    22 :     17.46%:
                                          |Details, Materials, Specifications    :    50 :     39.68%:
                                          |Road Alignment and Profiles           :    20 :     15.87%:
                                          |Life Cycle/Value Analysis             :    13 :     10.32%:
                                          |                                      :       :           :
                                          |Grading and Drainage Details          :    41 :     32.54%:
                                          |Sewer Collection                      :     7 :      5.56%:
                                          |Water Distribution                    :    15 :     11.90%:
                                          |Construction Administration           :    15 :     11.90%:
                                          |Maintenance Reviews and Scheduling    :    29 :     23.02%:
                                          |Other, please explain                 :     2 :      1.59%:
                                          |--------------------------------------:---------:------------:
```

```
VARIABLE= Residential Developers        P  R  O  V  I  D  E                            QUESTION # 11
                                        |S  E  R  V  I  C  E  S                        :Raw Data :Percentages :
                                        |---------------------------------------------:---------:------------:
                                        |Design Development/Site Planning             :     80 :      63.49%:
                                        |Agency Consul./Review Approv./Zoning Assist. :     69 :      54.76%:
                                        |Project Financing/Project Budgeting          :     40 :      31.75%:
                                        |Site Analysis                                :     68 :      53.97%:
                                        |Erosion Control                              :     63 :      50.00%:
                                        |                                             :        :            :
                                        |Storm Drainage                               :     40 :      31.75%:
                                        |Environmental Studies                        :     42 :      33.33%:
                                        |Financial Analysis                           :     13 :      10.32%:
                                        |Project Development Scheduling               :     29 :      23.02%:
                                        |Marketing/Feasibility Studies                :     15 :      11.90%:
                                        |                                             :        :            :
                                        |Post Construction/Evaluation                 :     42 :      33.33%:
                                        |Schematic/Preliminary Land Planning          :     72 :      57.14%:
                                        |Pre-Design                                   :     59 :      46.83%:
                                        |Site Selection                               :     35 :      27.78%:
                                        |Planting Plans                               :     85 :      67.46%:
                                        |                                             :        :            :
                                        |Master Plans                                 :     60 :      47.62%:
                                        |Preliminary Construction Cost Estimating     :     50 :      39.68%:
                                        |Irrigation                                   :     69 :      54.76%:
                                        |Feasibility Studies                          :     30 :      23.81%:
                                        |Presentation Graphics/Public Presentations   :     65 :      51.59%:
                                        |                                             :        :            :
                                        |Design Team Coordination                     :     35 :      27.78%:
                                        |Construction Documents                       :     48 :      38.10%:
                                        |Site Layout                                  :     63 :      50.00%:
                                        |Program Development                        :     40 :      31.75%:
                                        |Lighting design                              :     54 :      42.86%:
                                        |                                             :        :            :
                                        |Bidding(Negotiations)                        :     40 :      31.75%:
                                        |Project Administration                       :     39 :      30.95%:
                                        |Details, Materials, Specifications           :     60 :      47.62%:
                                        |Road Alignment and Profiles                  :     29 :      23.02%:
                                        |Life Cycle/Value Analysis                    :     27 :      21.43%:
                                        |                                             :        :            :
                                        |Grading and Drainage Details                 :     47 :      37.30%:
                                        |Sewer Collection                             :     15 :      11.90%:
                                        |Water Distribution                           :     23 :      18.25%:
                                        |Construction Administration                  :     21 :      16.67%:
                                        |Maintenance Reviews and Scheduling           :     35 :      27.78%:
                                        |Other, please explain                        :      2 :       1.59%:
                                        |---------------------------------------------:---------:------------:
```

```
VARIABLE= Residential Developers            I  M  P  R  O  V  E                         QUESTION # 12
                                            |S  E  R  V  I  C  E  S                 :Raw Data :Percentages :
                                            |--------------------------------------------:---------:------------:
                                            |Design Development/Site Planning           :    24 :      19.05%:
                                            |Agency Consul./Review Approv./Zoning Assist. :  31 :      24.60%:
                                            |Project Financing/Project Budgeting        :    30 :      23.81%:
                                            |Site Analysis                              :    21 :      16.67%:
                                            |Erosion Control                            :    20 :      15.87%:
                                            |                                           :       :            :
                                            |Storm Drainage                             :    15 :      11.90%:
                                            |Environmental Studies                      :    15 :      11.90%:
                                            |Financial Analysis                         :    15 :      11.90%:
                                            |Project Development Scheduling             :    13 :      10.32%:
                                            |Marketing/Feasibility Studies              :    12 :       9.52%:
                                            |                                           :       :            :
                                            |Post Construction/Evaluation               :    12 :       9.52%:
                                            |Schematic/Preliminary Land Planning        :    19 :      15.08%:
                                            |Pre-Design                                 :    12 :       9.52%:
                                            |Site Selection                             :    11 :       8.73%:
                                            |Planting Plans                             :    18 :      14.29%:
                                            |                                           :       :            :
                                            |Master Plans                               :    25 :      19.84%:
                                            |Preliminary Construction Cost Estimating   :    24 :      19.05%:
                                            |Irrigation                                 :    19 :      15.08%:
                                            |Feasibility Studies                        :    22 :      17.46%:
                                            |Presentation Graphics/Public Presentations :    19 :      15.08%:
                                            |                                           :       :            :
                                            |Design Team Coordination                   :    19 :      15.08%:
                                            |Construction Documents                     :    16 :      12.70%:
                                            |Site Layout                                :    18 :      14.29%:
                                            |Program Development                      :    15 :      11.90%:
                                            |Lighting design                            :    26 :      20.63%:
                                            |                                           :       :            :
                                            |Bidding(Negotiations)                      :    17 :      13.49%:
                                            |Project Administration                     :    18 :      14.29%:
                                            |Details, Materials, Specifications         :    12 :       9.52%:
                                            |Road Alignment and Profiles                :     8 :       6.35%:
                                            |Life Cycle/Value Analysis                  :    15 :      11.90%:
                                            |                                           :       :            :
                                            |Grading and Drainage Details               :    19 :      15.08%:
                                            |Sewer Collection                           :     8 :       6.35%:
                                            |Water Distribution                         :    10 :       7.94%:
                                            |Construction Administration                :    12 :       9.52%:
                                            |Maintenance Reviews and Scheduling         :    13 :      10.32%:
                                            |Other, please explain                      :     2 :       1.59%:
                                            |--------------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= Office Developers

Response using variable: 240

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	93	21.28%
Southeast States	113	25.86%
Great Lake States	44	10.07%
Midwest States	39	8.92%
Southwest States	48	10.98%
Pacific Northwest States	24	5.49%
Pacific Southwest States	66	15.10%
International Markets	10	2.29%
QUESTION 2--DEVELOPMENT		
Building	74	30.83%
Land	6	2.50%
Both	155	64.58%
QUESTION 3--SPECIFIC DEV.		
Commercial	198	21.93%
Industrial	178	19.71%
Residential	106	11.74%
Office	240	26.58%
Resort/Recreation	38	4.21%
Shopping Centers	125	13.84%
Other	18	1.99%
QUESTION 4--ORGANIZATIONS		
AIA	51	8.90%
APA	17	2.97%
ASCE	21	3.66%
ASLA	12	2.09%
ARRDA	3	0.52%
ULI	137	23.91%
NAHB	46	8.03%
NAIOP	223	38.92%
Other	63	10.99%
QUESTION 5--YRS EXPERIENCE		
0 - 10	40	16.67%
11 -20	83	34.58%
21 - 30	74	30.83%
31 - 40	17	7.08%
41 - 50	5	2.08%
Over 51	19	7.92%

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :      57 :    23.75%:
|30 - 100                  :      67 :    27.92%:
|101 - 200                 :      42 :    17.50%:
|201 - 300                 :      10 :     4.17%:
|301 - 500                 :      22 :     9.17%:
|Over 500                  :      37 :    15.42%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :       1 :     0.42%:
|$100,00 - $250,000        :       1 :     0.42%:
|$250,000 - $500,000       :       1 :     0.42%:
|$500,000 - 1 million      :       7 :     2.92%:
|1 million - 2 million     :      12 :     5.00%:
|2 million - 5 million     :      39 :    16.25%:
|Over 5 million dollars    :     175 :    72.92%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :     231 :    96.25%:
|No                        :       9 :     3.75%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :     139 :    57.92%:
|Middle                    :      38 :    15.83%:
|Late                      :      23 :     9.58%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :      30 :    12.50%:
|No                        :     207 :    86.25%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :      75 :    31.25%:
|Almost Never              :      40 :    16.67%:
|Sometimes                 :      65 :    27.08%:
|Almost Never              :      32 :    13.33%:
|Always                    :      22 :     9.17%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :       3 :     1.25%:
|Fair                      :      53 :    22.08%:
|Good                      :     118 :    49.17%:
|Excellent                 :      41 :    17.08%:
|No Basis For Judgement    :      10 :     4.17%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :       1 :     0.42%:
|Minimal Value             :      14 :     5.83%:
|Moderate Value            :      47 :    19.58%:
|Considerable Value        :     123 :    51.25%:
|Major Value               :      46 :    19.17%:
|--------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Office Developers

Response using variable:      240


TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
H  I  R  E  D                                            QUESTION # 9
|S  E  R  V  I  C  E  S                          :Raw Data :Percentages :
|-----------------------------------------------:---------:------------:
|Design Development/Site Planning               :    185 :      77.08%:
|Agency Consul./Review Approv./Zoning Assist.   :    117 :      48.75%:
|Project Financing/Project Budgeting            :     52 :      21.67%:
|Site Analysis                                  :    132 :      55.00%:
|Erosion Control                                :     90 :      37.50%:
|                                               :        :            :
|Storm Drainage                                 :     57 :      23.75%:
|Environmental Studies                          :     58 :      24.17%:
|Financial Analysis                             :     10 :       4.17%:
|Project Development Scheduling                 :     29 :      12.08%:
|Marketing/Feasibility Studies                  :     20 :       8.33%:
|                                               :        :            :
|Post Construction/Evaluation                   :     49 :      20.42%:
|Schematic/Preliminary Land Planning            :    140 :      58.33%:
|Pre-Design                                     :     91 :      37.92%:
|Site Selection                                 :     28 :      11.67%:
|Planting Plans                                 :    207 :      86.25%:
|                                               :        :            :
|Master Plans                                   :    133 :      55.42%:
|Preliminary Construction Cost Estimating       :     90 :      37.50%:
|Irrigation                                     :    157 :      65.42%:
|Feasibility Studies                            :     45 :      18.75%:
|Presentation Graphics/Public Presentations     :    140 :      58.33%:
|                                               :        :            :
|Design Team Coordination                       :     55 :      22.92%:
|Construction Documents                         :     99 :      41.25%:
|Site Layout                                    :    118 :      49.17%:
|Program Development                           :     50 :     20.83%:
|Lighting design                                :     93 :      38.75%:
|                                               :        :            :
|Bidding(Negotiations)                          :     72 :      30.00%:
|Project Administration                         :     64 :      26.67%:
|Details, Materials, Specifications             :    139 :      57.92%:
|Road Alignment and Profiles                    :     57 :      23.75%:
|Life Cycle/Value Analysis                      :     23 :       9.58%:
|                                               :        :            :
|Grading and Drainage Details                   :     77 :      32.08%:
|Sewer Collection                               :     20 :       8.33%:
|Water Distribution                             :     30 :      12.50%:
|Construction Administration                    :     33 :      13.75%:
|Maintenance Reviews and Scheduling             :     63 :      26.25%:
|Other, please explain                          :      6 :       2.50%:
|-----------------------------------------------:---------:------------:
```

```
VARIABLE= Office Developers            P  E  R  C  E  I  V  E                     QUESTION # 10
                                      |S  E  R  V  I  C  E  S                :Raw Data :Percentages :
                                      |--------------------------------------:---------:------------:
                                      |Design Development/Site Planning      :    133 :     55.42%:
                                      |Agency Consul./Review Approv./Zoning Assist. :    89 :     37.08%:
                                      |Project Financing/Project Budgeting   :     36 :     15.00%:
                                      |Site Analysis                         :    107 :     44.58%:
                                      |Erosion Control                       :     86 :     35.83%:
                                      |                                      :        :           :
                                      |Storm Drainage                        :     55 :     22.92%:
                                      |Environmental Studies                 :     61 :     25.42%:
                                      |Financial Analysis                    :      9 :      3.75%:
                                      |Project Development Scheduling        :     25 :     10.42%:
                                      |Marketing/Feasibility Studies         :     18 :      7.50%:
                                      |                                      :        :           :
                                      |Post Construction/Evaluation          :     44 :     18.33%:
                                      |Schematic/Preliminary Land Planning   :    116 :     48.33%:
                                      |Pre-Design                            :     79 :     32.92%:
                                      |Site Selection                        :     37 :     15.42%:
                                      |Planting Plans                        :    158 :     65.83%:
                                      |                                      :        :           :
                                      |Master Plans                          :    106 :     44.17%:
                                      |Preliminary Construction Cost Estimating :  65 :     27.08%:
                                      |Irrigation                            :    125 :     52.08%:
                                      |Feasibility Studies                   :     39 :     16.25%:
                                      |Presentation Graphics/Public Presentations : 119 :   49.58%:
                                      |                                      :        :           :
                                      |Design Team Coordination              :     37 :     15.42%:
                                      |Construction Documents                :     83 :     34.58%:
                                      |Site Layout                           :     95 :     39.58%:
                                      |Program Development                  :    44 :     18.33%:
                                      |Lighting design                       :     76 :     31.67%:
                                      |                                      :        :           :
                                      |Bidding(Negotiations)                 :     64 :     26.67%:
                                      |Project Administration                :     53 :     22.08%:
                                      |Details, Materials, Specifications    :    100 :     41.67%:
                                      |Road Alignment and Profiles           :     41 :     17.08%:
                                      |Life Cycle/Value Analysis             :     27 :     11.25%:
                                      |                                      :        :           :
                                      |Grading and Drainage Details          :     68 :     28.33%:
                                      |Sewer Collection                      :     16 :      6.67%:
                                      |Water Distribution                    :     28 :     11.67%:
                                      |Construction Administration           :     33 :     13.75%:
                                      |Maintenance Reviews and Scheduling    :     58 :     24.17%:
                                      |Other, please explain                 :      7 :      2.92%:
                                      |--------------------------------------:---------:------------:
```

```
VARIABLE= Office Developers          P  R  O  V  I  D  E                               QUESTION # 11
                                     |S  E  R  V  I  C  E  S                  :Raw Data :Percentages :
                                     |----------------------------------------:---------:------------:
                                     |Design Development/Site Planning        :    147 :      61.25%:
                                     |Agency Consul./Review Approv./Zoning Assist. : 120 :    50.00%:
                                     |Project Financing/Project Budgeting     :     69 :      28.75%:
                                     |Site Analysis                           :    130 :      54.17%:
                                     |Erosion Control                         :    117 :      48.75%:
                                     |                                        :        :            :
                                     |Storm Drainage                          :     76 :      31.67%:
                                     |Environmental Studies                   :     85 :      35.42%:
                                     |Financial Analysis                      :     24 :      10.00%:
                                     |Project Development Scheduling          :     44 :      18.33%:
                                     |Marketing/Feasibility Studies           :     31 :      12.92%:
                                     |                                        :        :            :
                                     |Post Construction/Evaluation            :     74 :      30.83%:
                                     |Schematic/Preliminary Land Planning     :    125 :      52.08%:
                                     |Pre-Design                              :    100 :      41.67%:
                                     |Site Selection                          :     65 :      27.08%:
                                     |Planting Plans                          :    162 :      67.50%:
                                     |                                        :        :            :
                                     |Master Plans                            :    122 :      50.83%:
                                     |Preliminary Construction Cost Estimating :    97 :      40.42%:
                                     |Irrigation                              :    147 :      61.25%:
                                     |Feasibility Studies                     :     64 :      26.67%:
                                     |Presentation Graphics/Public Presentations :  129 :      53.75%:
                                     |                                        :        :            :
                                     |Design Team Coordination                :     64 :      26.67%:
                                     |Construction Documents                  :     99 :      41.25%:
                                     |Site Layout                             :    113 :      47.08%:
                                     |Program Development                    :    69 :     28.75%:
                                     |Lighting design                         :    103 :      42.92%:
                                     |                                        :        :            :
                                     |Bidding(Negotiations)         .         :     88 :      36.67%:
                                     |Project Administration                  :     86 :      35.83%:
                                     |Details, Materials, Specifications      :    120 :      50.00%:
                                     |Road Alignment and Profiles             :     59 :      24.58%:
                                     |Life Cycle/Value Analysis               :     58 :      24.17%:
                                     |                                        :        :            :
                                     |Grading and Drainage Details            :     87 :      36.25%:
                                     |Sewer Collection                        :     33 :      13.75%:
                                     |Water Distribution                      :     44 :      18.33%:
                                     |Construction Administration             :     54 :      22.50%:
                                     |Maintenance Reviews and Scheduling      :     75 :      31.25%:
                                     |Other, please explain                   :      7 :       2.92%:
                                     |----------------------------------------:---------:------------:
```

```
VARIABLE= Office Developers                     I  M  P  R  O  V  E                           QUESTION # 12
                                                |S  E  R  V  I  C  E  S                   :Raw Data :Percentages :
                                                |-----------------------------------------:---------:------------:
                                                |Design Development/Site Planning         :    40 :      16.67%:
                                                |Agency Consul./Review Approv./Zoning Assist. :    51 :      21.25%:
                                                |Project Financing/Project Budgeting      :    52 :      21.67%:
                                                |Site Analysis                            :    44 :      18.33%:
                                                |Erosion Control                          :    33 :      13.75%:
                                                |                                         :       :            :
                                                |Storm Drainage                           :    31 :      12.92%:
                                                |Environmental Studies                    :    34 :      14.17%:
                                                |Financial Analysis                       :    23 :       9.58%:
                                                |Project Development Scheduling           :    20 :       8.33%:
                                                |Marketing/Feasibility Studies            :    24 :      10.00%:
                                                |                                         :       :            :
                                                |Post Construction/Evaluation             :    29 :      12.08%:
                                                |Schematic/Preliminary Land Planning      :    36 :      15.00%:
                                                |Pre-Design                               :    23 :       9.58%:
                                                |Site Selection                           :    19 :       7.92%:
                                                |Planting Plans                           :    32 :      13.33%:
                                                |                                         :       :            :
                                                |Master Plans                             :    44 :      18.33%:
                                                |Preliminary Construction Cost Estimating :    55 :      22.92%:
                                                |Irrigation                               :    34 :      14.17%:
                                                |Feasibility Studies                      :    37 :      15.42%:
                                                |Presentation Graphics/Public Presentations :    31 :      12.92%:
                                                |                                         :       :            :
                                                |Design Team Coordination                 :    34 :      14.17%:
                                                |Construction Documents                   :    30 :      12.50%:
                                                |Site Layout                              :    29 :      12.08%:
                                                |Program Development                     :    28 :     11.67%:
                                                |Lighting design                          :    45 :      18.75%:
                                                |                                         :       :            :
                                                |Bidding(Negotiations)                    :    33 :      13.75%:
                                                |Project Administration                   :    36 :      15.00%:
                                                |Details, Materials, Specifications       :    33 :      13.75%:
                                                |Road Alignment and Profiles              :    18 :       7.50%:
                                                |Life Cycle/Value Analysis                :    40 :      16.67%:
                                                |                                         :       :            :
                                                |Grading and Drainage Details             :    34 :      14.17%:
                                                |Sewer Collection                         :    13 :       5.42%:
                                                |Water Distribution                       :    17 :       7.08%:
                                                |Construction Administration              :    26 :      10.83%:
                                                |Maintenance Reviews and Scheduling       :    27 :      11.25%:
                                                |Other, please explain                    :     6 :       2.50%:
                                                |-----------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

D A T A

VARIABLE= Resort/Recreation Developers

Response using variable: 54

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	24	16.90%
Southeast States	30	21.13%
Great Lake States	19	13.38%
Midwest States	13	9.15%
Southwest States	20	14.08%
Pacific Northwest States	9	6.34%
Pacific Southwest States	22	15.49%
International Markets	5	3.52%
QUESTION 2--DEVELOPMENT		
Building	9	16.67%
Land	5	9.26%
Both	40	74.07%
QUESTION 3--SPECIFIC DEV.		
Commercial	38	16.59%
Industrial	28	12.23%
Residential	34	14.85%
Office	38	16.59%
Resort/Recreation	54	23.58%
Shopping Centers	32	13.97%
Other	5	2.18%
QUESTION 4--ORGANIZATIONS		
AIA	10	8.62%
APA	7	6.03%
ASCE	2	1.72%
ASLA	8	6.90%
ARRDA	13	11.21%
ULI	26	22.41%
NAHB	14	12.07%
NAIOP	29	25.00%
Other	7	6.03%
QUESTION 5--YRS EXPERIENCE		
0 - 10	11	20.37%
11 -20	16	29.63%
21 - 30	15	27.78%
31 - 40	3	5.56%
41 - 50	2	3.70%
Over 51	7	12.96%

QUESTION 6--ACRES		
0 - 30	13	24.07%
30 - 100	9	16.67%
101 - 200	6	11.11%
201 - 300	2	3.70%
301 - 500	6	11.11%
Over 500	18	33.33%
QUESTION 7--$ VOLUME		
0 - $100,000	1	1.85%
$100,00 - $250,000	1	1.85%
$250,000 - $500,000	2	3.70%
$500,000 - 1 million	4	7.41%
1 million - 2 million	2	3.70%
2 million - 5 million	8	14.81%
Over 5 million dollars	35	64.81%
QUESTION 8--USE LA'S		
Yes	51	94.44%
No	3	5.56%
QUESTION 13--STAGES		
Early	30	55.56%
Middle	9	16.67%
Late	4	7.41%
QUESTION 14--EMPLOY IN FIRM		
Yes	14	25.93%
No	50	92.59%
QUESTION 15--SUPERVISORY		
Never	14	25.93%
Almost Never	11	20.37%
Sometimes	16	29.63%
Almost Never	2	3.70%
Always	9	16.67%
QUESTION 16--RATING		
Inferior	0	0.00%
Fair	12	22.22%
Good	21	38.89%
Excellent	14	25.93%
No Basis For Judgement	4	7.41%
QUESTION 17--VALUE		
Of No Value	0	0.00%
Minimal Value	2	3.70%
Moderate Value	5	9.26%
Considerable Value	28	51.85%
Major Value	18	33.33%

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Resort/Recreation Developers

Response using variable:        54


TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
 H  I  R  E  D                                            QUESTION # 9
|S  E  R  V  I  C  E  S                               :Raw Data :Percentages :
|-----------------------------------------------------:---------:------------:
|Design Development/Site Planning                     :     40 :      74.07%:
|Agency Consul./Review Approv./Zoning Assist.         :     27 :      50.00%:
|Project Financing/Project Budgeting                  :     13 :      24.07%:
|Site Analysis                                        :     32 :      59.26%:
|Erosion Control                                      :     25 :      46.30%:
|                                                     :        :            :
|Storm Drainage                                       :     18 :      33.33%:
|Environmental Studies                                :     21 :      38.89%:
|Financial Analysis                                   :      5 :       9.26%:
|Project Development Scheduling                       :     11 :      20.37%:
|Marketing/Fesaibility Studies                        :      5 :       9.26%:
|                                                     :        :            :
|Post Construction/Evaluation                         :     10 :      18.52%:
|Schematic/Preliminary Land Planning                  :     30 :      55.56%:
|Pre-Design                                           :     24 :      44.44%:
|Site Selection                                       :     10 :      18.52%:
|Planting Plans                                       :     43 :      79.63%:
|                                                     :        :            :
|Master Plans                                         :     29 :      53.70%:
|Preliminary Construction Cost Estimating             :     18 :      33.33%:
|Irrigation                                           :     30 :      55.56%:
|Feasibility Studies                                  :      9 :      16.67%:
|Presentation Graphics/Public Presentations           :     29 :      53.70%:
|                                                     :        :            :
|Design Team Coordination                             :     21 :      38.89%:
|Construction Documents                               :     16 :      29.63%:
|Site Layout                                          :     31 :      57.41%:
|Program Development                                :     15 :    27.78%:
|Lighting design                                      :     23 :      42.59%:
|                                                     :        :            :
|Bidding(Negotiations)                                :     13 :      24.07%:
|Project Administration                               :     16 :      29.63%:
|Details, Materials, Specifications                   :     26 :      48.15%:
|Road Alignment and Profiles                          :     14 :      25.93%:
|Life Cycle/Value Analysis                            :      6 :      11.11%:
|                                                     :        :            :
|Grading and Drainage Details                         :     14 :      25.93%:
|Sewer Collection                                     :     10 :      18.52%:
|Water Distribution                                   :     13 :      24.07%:
|Construction Administration                          :      7 :      12.96%:
|Maintenance Reviews and Scheduling                   :     11 :      20.37%:
|Other, please explain                                :      0 :       0.00%:
|-----------------------------------------------------:---------:------------:
```

VARIABLE= Resort/Recreation Developers

PERCEIVE | QUESTION # 10

SERVICES	Raw Data	Percentages
Design Development/Site Planning	31	57.41%
Agency Consul./Review Approv./Zoning Assist.	23	42.59%
Project Financing/Project Budgeting	13	24.07%
Site Analysis	23	42.59%
Erosion Control	23	42.59%
Storm Drainage	13	24.07%
Environmental Studies	15	27.78%
Financial Analysis	4	7.41%
Project Development Scheduling	9	16.67%
Marketing/Feasibility Studies	8	14.81%
Post Construction/Evaluation	12	22.22%
Schematic/Preliminary Land Planning	23	42.59%
Pre-Design	21	38.89%
Site Selection	12	22.22%
Planting Plans	33	61.11%
Master Plans	22	40.74%
Preliminary Construction Cost Estimating	15	27.78%
Irrigation	20	37.04%
Feasibility Studies	9	16.67%
Presentation Graphics/Public Presentations	23	42.59%
Design Team Coordination	13	24.07%
Construction Documents	15	27.78%
Site Layout	21	38.89%
Program Development	13	24.07%
Lighting design	21	38.89%
Bidding(Negotiations)	11	20.37%
Project Administration	10	18.52%
Details, Materials, Specifications	20	37.04%
Road Alignment and Profiles	11	20.37%
Life Cycle/Value Analysis	8	14.81%
Grading and Drainage Details	12	22.22%
Sewer Collection	5	9.26%
Water Distribution	9	16.67%
Construction Administration	5	9.26%
Maintenance Reviews and Scheduling	13	24.07%
Other, please explain	0	0.00%

```
VARIABLE= Resort/Recreation Developers    P  R  O  V  I  D  E                         QUESTION # 11
                                          |S  E  R  V  I  C  E  S              :Raw Data :Percentages :
                                          |-------------------------------------------:---------:------------:
                                          |Design Development/Site Planning           :    33 :      61.11%:
                                          |Agency Consul./Review Approv./Zoning Assist. :  26 :      48.15%:
                                          |Project Financing/Project Budgeting        :    16 :      29.63%:
                                          |Site Analysis                              :    31 :      57.41%:
                                          |Erosion Control                            :    27 :      50.00%:
                                          |                                           :       :            :
                                          |Storm Drainage                             :    15 :      27.78%:
                                          |Environmental Studies                      :    19 :      35.19%:
                                          |Financial Analysis                         :     6 :      11.11%:
                                          |Project Development Scheduling             :    13 :      24.07%:
                                          |Marketing/Feasibility Studies              :    10 :      18.52%:
                                          |                                           :       :            :
                                          |Post Construction/Evaluation               :    18 :      33.33%:
                                          |Schematic/Preliminary Land Planning        :    32 :      59.26%:
                                          |Pre-Design                                 :    27 :      50.00%:
                                          |Site Selection                             :    18 :      33.33%:
                                          |Planting Plans                             :    37 :      68.52%:
                                          |                                           :       :            :
                                          |Master Plans                               :    27 :      50.00%:
                                          |Preliminary Construction Cost Estimating   :    22 :      40.74%:
                                          |Irrigation                                 :    30 :      55.56%:
                                          |Feasibility Studies                        :    14 :      25.93%:
                                          |Presentation Graphics/Public Presentations :    30 :      55.56%:
                                          |                                           :       :            :
                                          |Design Team Coordination                   :    18 :      33.33%:
                                          |Construction Documents                     :    19 :      35.19%:
                                          |Site Layout                                :    26 :      48.15%:
                                          |Program Development                      :    18 :     33.33%:
                                          |Lighting design                            :    27 :      50.00%:
                                          |                                           :       :            :
                                          |Bidding(Negotiations)                      :    17 :      31.48%:
                                          |Project Administration                     :    19 :      35.19%:
                                          |Details, Materials, Specifications         :    25 :      46.30%:
                                          |Road Alignment and Profiles                :    15 :      27.78%:
                                          |Life Cycle/Value Analysis                  :    12 :      22.22%:
                                          |                                           :       :            :
                                          |Grading and Drainage Details               :    15 :      27.78%:
                                          |Sewer Collection                           :     8 :      14.81%:
                                          |Water Distribution                         :    11 :      20.37%:
                                          |Construction Administration                :    11 :      20.37%:
                                          |Maintenance Reviews and Scheduling         :    17 :      31.48%:
                                          |Other, please explain                      :     0 :       0.00%:
                                          |-------------------------------------------:---------:------------:
```

```
VARIABLE= Resort/Recreation Developers        I  M  P  R  O  V  E                              QUESTION # 12
                                             |S  E  R  V  I  C  E  S                      :Raw Data :Percentages :
                                             |-------------------------------------------:---------:------------:
                                             |Design Development/Site Planning           :      12 :     22.22%:
                                             |Agency Consul./Review Approv./Zoning Assist. :     7 :     12.96%:
                                             |Project Financing/Project Budgeting        :      15 :     27.78%:
                                             |Site Analysis                              :       8 :     14.81%:
                                             |Erosion Control                            :       6 :     11.11%:
                                             |                                           :         :           :
                                             |Storm Drainage                             :       4 :      7.41%:
                                             |Environmental Studies                      :       5 :      9.26%:
                                             |Financial Analysis                         :       8 :     14.81%:
                                             |Project Development Scheduling             :       8 :     14.81%:
                                             |Marketing/Fessibility Studies              :       8 :     14.81%:
                                             |                                           :         :           :
                                             |Post Construction/Evaluation               :       4 :      7.41%:
                                             |Schematic/Preliminary Land Planning        :       6 :     11.11%:
                                             |Pre-Design                                 :       6 :     11.11%:
                                             |Site Selection                             :       3 :      5.56%:
                                             |Planting Plans                             :       6 :     11.11%:
                                             |                                           :         :           :
                                             |Master Plans                               :      10 :     18.52%:
                                             |Preliminary Construction Cost Estimating   :       9 :     16.67%:
                                             |Irrigation                                 :       6 :     11.11%:
                                             |Feasibility Studies                        :       8 :     14.81%:
                                             |Presentation Graphics/Public Presentations :       7 :     12.96%:
                                             |                                           :         :           :
                                             |Design Team Coordination                   :       9 :     16.67%:
                                             |Construction Documents                     :       5 :      9.26%:
                                             |Site Layout                                :       6 :     11.11%:
                                             |Program Development                       :       5 :     9.26%:
                                             |Lighting design                            :      12 :     22.22%:
                                             |                                           :         :           :
                                             |Bidding(Negotiations)                      :       9 :     16.67%:
                                             |Project Administration                     :      10 :     18.52%:
                                             |Details, Materials, Specifications         :       6 :     11.11%:
                                             |Road Alignment and Profiles                :       3 :      5.56%:
                                             |Life Cycle/Value Analysis                  :       6 :     11.11%:
                                             |                                           :         :           :
                                             |Grading and Drainage Details               :       6 :     11.11%:
                                             |Sewer Collection                           :       4 :      7.41%:
                                             |Water Distribution                         :       4 :      7.41%:
                                             |Construction Administration                :       7 :     12.96%:
                                             |Maintenance Reviews and Scheduling         :       5 :      9.26%:
                                             |Other, please explain                      :       0 :      0.00%:
                                             |-------------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= Shopping Center Developers

Response using variable: 139

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	52	18.98%
Southeast States	70	25.55%
Great Lake States	28	10.22%
Midwest States	27	9.85%
Southwest States	30	10.95%
Pacific Northwest States	17	6.20%
Pacific Southwest States	42	15.33%
International Markets	8	2.92%
QUESTION 2--DEVELOPMENT		
Building	35	25.18%
Land	4	2.88%
Both	96	69.06%
QUESTION 3--SPECIFIC DEV.		
Commercial	132	21.29%
Industrial	103	16.61%
Residential	78	12.58%
Office	125	20.16%
Resort/Recreation	32	5.16%
Shopping Centers	139	22.42%
Other	11	1.77%
QUESTION 4--ORGANIZATIONS		
AIA	32	9.07%
APA	12	3.40%
ASCE	11	3.12%
ASLA	8	2.27%
ARRDA	3	0.85%
ULI	85	24.08%
NAHB	32	9.07%
NAIOP	129	36.54%
Other	41	11.61%
QUESTION 5--YRS EXPERIENCE		
0 - 10	22	15.83%
11 -20	47	33.81%
21 - 30	46	33.09%
31 - 40	9	6.47%
41 - 50	3	2.16%
Over 51	11	7.91%

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :      27 :    19.42%:
|30 - 100                  :      36 :    25.90%:
|101 - 200                 :      24 :    17.27%:
|201 - 300                 :       7 :     5.04%:
|301 - 500                 :      16 :    11.51%:
|Over 500                  :      25 :    17.99%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :       0 :     0.00%:
|$100,00 - $250,000        :       1 :     0.72%:
|$250,000 - $500,000       :       1 :     0.72%:
|$500,000 - 1 million      :       5 :     3.60%:
|1 million - 2 million     :       6 :     4.32%:
|2 million - 5 million     :      17 :    12.23%:
|Over 5 million dollars    :     106 :    76.26%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :     135 :    97.12%:
|No                        :       4 :     2.88%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :      72 :    51.80%:
|Middle                    :      27 :    19.42%:
|Late                      :      18 :    12.95%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :      21 :    15.11%:
|No                        :     116 :    83.45%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :      43 :    30.94%:
|Almost Never              :      19 :    13.67%:
|Sometimes                 :      43 :    30.94%:
|Almost Never              :      21 :    15.11%:
|Always                    :      11 :     7.91%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :       1 :     0.72%:
|Fair                      :      38 :    27.34%:
|Good                      :      60 :    43.17%:
|Excellent                 :      23 :    16.55%:
|No Basis For Judgement    :       8 :     5.76%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :       0 :     0.00%:
|Minimal Value             :       7 :     5.04%:
|Moderate Value            :      29 :    20.86%:
|Considerable Value        :      73 :    52.52%:
|Major Value               :      26 :    18.71%:
|--------------------------:---------:----------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Shopping Center Developers

Response using variable: 139

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTION # 9

HIRED SERVICES	Raw Data	Percentages
Design Development/Site Planning	102	73.38%
Agency Consul./Review Approv./Zoning Assist.	77	55.40%
Project Financing/Project Budgeting	30	21.58%
Site Analysis	77	55.40%
Erosion Control	54	38.85%
Storm Drainage	30	21.58%
Environmental Studies	32	23.02%
Financial Analysis	8	5.76%
Project Development Scheduling	16	11.51%
Marketing/Feasibility Studies	8	5.76%
Post Construction/Evaluation	27	19.42%
Schematic/Preliminary Land Planning	83	59.71%
Pre-Design	57	41.01%
Site Selection	15	10.79%
Planting Plans	116	83.45%
Master Plans	74	53.24%
Preliminary Construction Cost Estimating	54	38.85%
Irrigation	84	60.43%
Feasibility Studies	22	15.83%
Presentation Graphics/Public Presentations	80	57.55%
Design Team Coordination	30	21.58%
Construction Documents	50	35.97%
Site Layout	68	48.92%
Program Development	25	17.99%
Lighting design	48	34.53%
Bidding(Negotiations)	36	25.90%
Project Administration	33	23.74%
Details, Materials, Specifications	80	57.55%
Road Alignment and Profiles	29	20.86%
Life Cycle/Value Analysis	14	10.07%
Grading and Drainage Details	45	32.37%
Sewer Collection	10	7.19%
Water Distribution	15	10.79%
Construction Administration	17	12.23%
Maintenance Reviews and Scheduling	37	26.62%
Other, please explain	2	1.44%

```
VARIABLE= Shopping Center Developers      P  E  R  C  E  I  V  E                  QUESTION # 10
                                         |S  E  R  V  I  C  E  S              :Raw Data :Percentages :
                                         |-------------------------------------:---------:------------:
                                         |Design Development/Site Planning     :    80 :     57.55%:
                                         |Agency Consul./Review Approv./Zoning Assist. :    55 :     39.57%:
                                         |Project Financing/Project Budgeting  :    19 :     13.67%:
                                         |Site Analysis                        :    61 :     43.88%:
                                         |Erosion Control                      :    53 :     38.13%:
                                         |                                     :       :           :
                                         |Storm Drainage                       :    31 :     22.30%:
                                         |Environmental Studies                :    38 :     27.34%:
                                         |Financial Analysis                   :     6 :      4.32%:
                                         |Project Development Scheduling       :    14 :     10.07%:
                                         |Marketing/Feasibility Studies        :    10 :      7.19%:
                                         |                                     :       :           :
                                         |Post Construction/Evaluation         :    27 :     19.42%:
                                         |Schematic/Preliminary Land Planning  :    70 :     50.36%:
                                         |Pre-Design                           :    44 :     31.65%:
                                         |Site Selection                       :    23 :     16.55%:
                                         |Planting Plans                       :    93 :     66.91%:
                                         |                                     :       :           :
                                         |Master Plans                         :    59 :     42.45%:
                                         |Preliminary Construction Cost Estimating :    38 :     27.34%:
                                         |Irrigation                           :    70 :     50.36%:
                                         |Feasibility Studies                  :    17 :     12.23%:
                                         |Presentation Graphics/Public Presentations :    69 :     49.64%:
                                         |                                     :       :           :
                                         |Design Team Coordination             :    25 :     17.99%:
                                         |Construction Documents               :    48 :     34.53%:
                                         |Site Layout                          :    52 :     37.41%:
                                         |Program Development                 :   25 :    17.99%:
                                         |Lighting design                      :    41 :     29.50%:
                                         |                                     :       :           :
                                         |Bidding(Negotiations)                :    34 :     24.46%:
                                         |Project Administration               :    27 :     19.42%:
                                         |Details, Materials, Specifications   :    56 :     40.29%:
                                         |Road Alignment and Profiles          :    23 :     16.55%:
                                         |Life Cycle/Value Analysis            :    15 :     10.79%:
                                         |                                     :       :           :
                                         |Grading and Drainage Details         :    40 :     28.78%:
                                         |Sewer Collection                     :     9 :      6.47%:
                                         |Water Distribution                   :    17 :     12.23%:
                                         |Construction Administration          :    18 :     12.95%:
                                         |Maintenance Reviews and Scheduling   :    36 :     25.90%:
                                         |Other, please explain                :     4 :      2.88%:
                                         |-------------------------------------:---------:------------:
```

```
VARIABLE= Shopping Center Developers      P R O V I D E                          QUESTION # 11
                                          |S E R V I C E S                          :Raw Data :Percentages :
                                          |-----------------------------------------:---------:------------:
                                          |Design Development/Site Planning         :     90 :      64.75%:
                                          |Agency Consul./Review Approv./Zoning Assist. :  72 :      51.80%:
                                          |Project Financing/Project Budgeting      :     38 :      27.34%:
                                          |Site Analysis                            :     78 :      56.12%:
                                          |Erosion Control                          :     71 :      51.08%:
                                          |                                         :        :            :
                                          |Storm Drainage                           :     45 :      32.37%:
                                          |Environmental Studies                    :     56 :      40.29%:
                                          |Financial Analysis                       :     14 :      10.07%:
                                          |Project Development Scheduling           :     26 :      18.71%:
                                          |Marketing/Feasibility Studies            :     17 :      12.23%:
                                          |                                         :        :            :
                                          |Post Construction/Evaluation             :     43 :      30.94%:
                                          |Schematic/Preliminary Land Planning      :     78 :      56.12%:
                                          |Pre-Design                               :     57 :      41.01%:
                                          |Site Selection                           :     34 :      24.46%:
                                          |Planting Plans                           :     96 :      69.06%:
                                          |                                         :        :            :
                                          |Master Plans                             :     72 :      51.80%:
                                          |Preliminary Construction Cost Estimating :     57 :      41.01%:
                                          |Irrigation                               :     87 :      62.59%:
                                          |Feasibility Studies                      :     33 :      23.74%:
                                          |Presentation Graphics/Public Presentations :   75 :      53.96%:
                                          |                                         :        :            :
                                          |Design Team Coordination                 :     42 :      30.22%:
                                          |Construction Documents                   :     55 :      39.57%:
                                          |Site Layout                              :     68 :      48.92%:
                                          |Program Development                     :     40 :      28.78%:
                                          |Lighting design                          :     58 :      41.73%:
                                          |                                         :        :            :
                                          |Bidding(Negotiations)                    :     49 :      35.25%:
                                          |Project Administration                   :     46 :      33.09%:
                                          |Details, Materials, Specifications       :     65 :      46.76%:
                                          |Road Alignment and Profiles              :     34 :      24.46%:
                                          |Life Cycle/Value Analysis                :     35 :      25.18%:
                                          |                                         :        :            :
                                          |Grading and Drainage Details             :     52 :      37.41%:
                                          |Sewer Collection                         :     18 :      12.95%:
                                          |Water Distribution                       :     26 :      18.71%:
                                          |Construction Administration              :     31 :      22.30%:
                                          |Maintenance Reviews and Scheduling       :     45 :      32.37%:
                                          |Other, please explain                    :      5 :       3.60%:
                                          |-----------------------------------------:---------:------------:
```

VARIABLE= Shopping Center Developers

IMPROVE

QUESTION # 12

SERVICES	Raw Data	Percentages
Design Development/Site Planning	28	20.14%
Agency Consul./Review Approv./Zoning Assist.	30	21.58%
Project Financing/Project Budgeting	36	25.90%
Site Analysis	28	20.14%
Erosion Control	16	11.51%
Storm Drainage	14	10.07%
Environmental Studies	18	12.95%
Financial Analysis	13	9.35%
Project Development Scheduling	15	10.79%
Marketing/Feasibility Studies	14	10.07%
Post Construction/Evaluation	16	11.51%
Schematic/Preliminary Land Planning	23	16.55%
Pre-Design	15	10.79%
Site Selection	10	7.19%
Planting Plans	18	12.95%
Master Plans	29	20.86%
Preliminary Construction Cost Estimating	30	21.58%
Irrigation	20	14.39%
Feasibility Studies	23	16.55%
Presentation Graphics/Public Presentations	19	13.67%
Design Team Coordination	23	16.55%
Construction Documents	16	11.51%
Site Layout	14	10.07%
Program Development	17	12.23%
Lighting design	27	19.42%
Bidding(Negotiations)	20	14.39%
Project Administration	20	14.39%
Details, Materials, Specifications	19	13.67%
Road Alignment and Profiles	6	4.32%
Life Cycle/Value Analysis	22	15.83%
Grading and Drainage Details	15	10.79%
Sewer Collection	6	4.32%
Water Distribution	8	5.76%
Construction Administration	15	10.79%
Maintenance Reviews and Scheduling	16	11.51%
Other, please explain	5	3.60%

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

```
VARIABLE=    Northeast States

Response using variable:      115

TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 | Q10=    222 |
Q2=   309 | Q11=    233 |
Q3=   317 | Q12=    187 |
Q4=   317 | Q13=    270 |
Q5=   314 | Q14=    315 |
Q6=   312 | Q15=    305 |
Q7=   309 | Q16=    301 |
Q8=   313 | Q17=    306 |
Q9=   293 |             |
==========|=============|
```

```
|===========================:=========:==========:
|QUESTIONS                  :Raw Data :Percentage:
|===========================:=========:==========:
|QUESTION 1 --REGIONS       :         :          :
|Northeast States           :     115 :    34.85%:
|Southeast States           :      55 :    16.67%:
|Great Lake States          :      34 :    10.30%:
|Midwest States             :      28 :     8.48%:
|Southwest States           :      33 :    10.00%:
|Pacific Northwest States   :      20 :     6.06%:
|Pacific Southwest States   :      32 :     9.70%:
|International Markets      :      13 :     3.94%:
|                           :         :          :
|---------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT    :         :          :
|Building                   :      36 :    31.30%:
|Land                       :       6 :     5.22%:
|Both                       :      72 :    62.61%:
|---------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV.  :         :          :
|Commercial                 :      81 :    20.88%:
|Industrial                 :      73 :    18.81%:
|Residential                :      48 :    12.37%:
|Office                     :      93 :    23.97%:
|Resort/Recreation          :      24 :     6.19%:
|Shopping Centers           :      52 :    13.40%:
|Other                      :      17 :     4.38%:
|---------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS  :         :          :
|AIA                        :      35 :    12.50%:
|APA                        :       7 :     2.50%:
|ASCE                       :      22 :     7.86%:
|ASLA                       :       9 :     3.21%:
|ARRDA                      :       5 :     1.79%:
|ULI                        :      64 :    22.86%:
|NAHB                       :      20 :     7.14%:
|NAIOP                      :      91 :    32.50%:
|Other                      :      27 :     9.64%:
|---------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :         :          :
|0 - 10                     :      10 :     8.70%:
|11 -20                     :      41 :    35.65%:
|21 - 30                    :      37 :    32.17%:
|31 - 40                    :       9 :     7.83%:
|41 - 50                    :       3 :     2.61%:
|Over 51                    :      13 :    11.30%:
|---------------------------:---------:----------:
```

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :      27 :    23.48%:
|30 - 100                  :      32 :    27.83%:
|101 - 200                 :      18 :    15.65%:
|201 - 300                 :       5 :     4.35%:
|301 - 500                 :      12 :    10.43%:
|Over 500                  :      21 :    18.26%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :       1 :     0.87%:
|$100,00 - $250,000        :       2 :     1.74%:
|$250,000 - $500,000       :       2 :     1.74%:
|$500,000 - 1 million      :       3 :     2.61%:
|1 million - 2 million     :       6 :     5.22%:
|2 million - 5 million     :      14 :    12.17%:
|Over 5 million dollars    :      86 :    74.78%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :     107 :    93.04%:
|No                        :       8 :     6.96%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :      59 :    51.30%:
|Middle                    :      27 :    23.48%:
|Late                      :      14 :    12.17%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :     0.00%:
|Yes                       :      19 :    16.52%:
|No                        :      95 :    82.61%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :     0.00%:
|Never                     :      39 :    33.91%:
|Almost Never              :      18 :    15.65%:
|Sometimes                 :      34 :    29.57%:
|Almost Never              :      11 :     9.57%:
|Always                    :       8 :     6.96%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :     0.00%:
|Inferior                  :       0 :     0.00%:
|Fair                      :      21 :    18.26%:
|Good                      :      62 :    53.91%:
|Excellent                 :      18 :    15.65%:
|No Basis For Judgement    :       7 :     6.09%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :     0.00%:
|Of No Value               :       0 :     0.00%:
|Minimal Value             :       4 :     3.48%:
|Moderate Value            :      29 :    25.22%:
|Considerable Value        :      57 :    49.57%:
|Major Value               :      23 :    20.00%:
|--------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Northeast States

Response using variable:       115


TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
 H  I  R  E  D                                              QUESTION # 9
|S  E  R  V  I  C  E  S                                :Raw Data :Percentages :
|------------------------------------------------------:---------:------------:
|Design Development/Site Planning                      :     85 :      73.91%:
|Agency Consul./Review Approv./Zoning Assist.          :     56 :      48.70%:
|Project Financing/Project Budgeting                   :     19 :      16.52%:
|Site Analysis                                         :     59 :      51.30%:
|Erosion Control                                       :     42 :      36.52%:
|                                                      :        :            :
|Storm Drainage                                        :     31 :      26.96%:
|Environmental Studies                                 :     32 :      27.83%:
|Financial Analysis                                    :      3 :       2.61%:
|Project Development Scheduling                        :     12 :      10.43%:
|Marketing/Feasibility Studies                         :      7 :       6.09%:
|                                                      :        :            :
|Post Construction/Evaluation                          :     14 :      12.17%:
|Schematic/Preliminary Land Planning                   :     63 :      54.78%:
|Pre-Design                                            :     34 :      29.57%:
|Site Selection                                        :     10 :       8.70%:
|Planting Plans                                        :     94 :      81.74%:
|                                                      :        :            :
|Master Plans                                          :     54 :      46.96%:
|Preliminary Construction Cost Estimating              :     32 :      27.83%:
|Irrigation                                            :     51 :      44.35%:
|Feasibility Studies                                   :     21 :      18.26%:
|Presentation Graphics/Public Presentations            :     62 :      53.91%:
|                                                      :        :            :
|Design Team Coordination                              :     24 :      20.87%:
|Construction Documents                                :     39 :      33.91%:
|Site Layout                                           :     50 :      43.48%:
|Program Development                                 :     19 :     16.52%:
|Lighting design                                       :     41 :      35.65%:
|                                                      :        :            :
|Bidding(Negotiations)                                 :     26 :      22.61%:
|Project Administration                                :     27 :      23.48%:
|Details, Materials, Specifications                    :     63 :      54.78%:
|Road Alignment and Profiles                           :     29 :      25.22%:
|Life Cycle/Value Analysis                             :      7 :       6.09%:
|                                                      :        :            :
|Grading and Drainage Details                          :     36 :      31.30%:
|Sewer Collection                                      :     15 :      13.04%:
|Water Distribution                                    :     15 :      13.04%:
|Construction Administration                           :     13 :      11.30%:
|Maintenance Reviews and Scheduling                    :     20 :      17.39%:
|Other, please explain                                 :      3 :       2.61%:
|------------------------------------------------------:---------:------------:
```

```
VARIABLE=    Northeast States          P E R C E I V E                       QUESTION # 10
                                      |S E R V I C E S                      :Raw Data :Percentages :
                                      |-------------------------------------:---------:------------:
                                      |Design Development/Site Planning     :      63 :     54.78%:
                                      |Agency Consul./Review Approv./Zoning Assist. : 41 :  35.65%:
                                      |Project Financing/Project Budgeting  :      12 :     10.43%:
                                      |Site Analysis                        :      48 :     41.74%:
                                      |Erosion Control                      :      39 :     33.91%:
                                      |                                     :         :            :
                                      |Storm Drainage                       :      26 :     22.61%:
                                      |Environmental Studies                :      32 :     27.83%:
                                      |Financial Analysis                   :       2 :      1.74%:
                                      |Project Development Scheduling       :      14 :     12.17%:
                                      |Marketing/Feasibility Studies        :      11 :      9.57%:
                                      |                                     :         :            :
                                      |Post Construction/Evaluation         :      16 :     13.91%:
                                      |Schematic/Preliminary Land Planning  :      50 :     43.48%:
                                      |Pre-Design                           :      34 :     29.57%:
                                      |Site Selection                       :      19 :     16.52%:
                                      |Planting Plans                       :      77 :     66.96%:
                                      |                                     :         :            :
                                      |Master Plans                         :      49 :     42.61%:
                                      |Preliminary Construction Cost Estimating :  29 :     25.22%:
                                      |Irrigation                           :      49 :     42.61%:
                                      |Feasibility Studies                  :      24 :     20.87%:
                                      |Presentation Graphics/Public Presentations : 56 :    48.70%:
                                      |                                     :         :            :
                                      |Design Team Coordination             :      15 :     13.04%:
                                      |Construction Documents               :      34 :     29.57%:
                                      |Site Layout                          :      44 :     38.26%:
                                      |Program Development                :      22 :     19.13%:
                                      |Lighting design                      :      32 :     27.83%:
                                      |                                     :         :            :
                                      |Bidding(Negotiations)                :      27 :     23.48%:
                                      |Project Administration               :      22 :     19.13%:
                                      |Details, Materials, Specifications   :      47 :     40.87%:
                                      |Road Alignment and Profiles          :      20 :     17.39%:
                                      |Life Cycle/Value Analysis            :       9 :      7.83%:
                                      |                                     :         :            :
                                      |Grading and Drainage Details         :      33 :     28.70%:
                                      |Sewer Collection                     :       9 :      7.83%:
                                      |Water Distribution                   :      11 :      9.57%:
                                      |Construction Administration          :      12 :     10.43%:
                                      |Maintenance Reviews and Scheduling   :      21 :     18.26%:
                                      |Other, please explain                :       6 :      5.22%:
                                      |-------------------------------------:---------:------------:
```

VARIABLE= Northeast States

PROVIDE

QUESTION # 11

SERVICES	Raw Data	Percentages
Design Development/Site Planning	66	57.39%
Agency Consul./Review Approv./Zoning Assist.	52	45.22%
Project Financing/Project Budgeting	26	22.61%
Site Analysis	59	51.30%
Erosion Control	53	46.09%
Storm Drainage	32	27.83%
Environmental Studies	43	37.39%
Financial Analysis	9	7.83%
Project Development Scheduling	20	17.39%
Marketing/Feasibility Studies	16	13.91%
Post Construction/Evaluation	30	26.09%
Schematic/Preliminary Land Planning	58	50.43%
Pre-Design	46	40.00%
Site Selection	34	29.57%
Planting Plans	76	66.09%
Master Plans	55	47.83%
Preliminary Construction Cost Estimating	43	37.39%
Irrigation	55	47.83%
Feasibility Studies	30	26.09%
Presentation Graphics/Public Presentations	61	53.04%
Design Team Coordination	25	21.74%
Construction Documents	42	36.52%
Site Layout	52	45.22%
Program Development	31	26.96%
Lighting design	46	40.00%
Bidding(Negotiations)	38	33.04%
Project Administration	37	32.17%
Details, Materials, Specifications	57	49.57%
Road Alignment and Profiles	25	21.74%
Life Cycle/Value Analysis	23	20.00%
Grading and Drainage Details	41	35.65%
Sewer Collection	14	12.17%
Water Distribution	18	15.65%
Construction Administration	21	18.26%
Maintenance Reviews and Scheduling	30	26.09%
Other, please explain	3	2.61%

```
VARIABLE=    Northeast States              I M P R O V E                         QUESTION # 12
                                          |S E R V I C E S                      :Raw Data :Percentages :
                                          |-------------------------------------:---------:------------:
                                          |Design Development/Site Planning     :      22 :      19.13%:
                                          |Agency Consul./Review Approv./Zoning Assist. : 19 :  16.52%:
                                          |Project Financing/Project Budgeting  :      25 :      21.74%:
                                          |Site Analysis                        :      23 :      20.00%:
                                          |Erosion Control                      :      17 :      14.78%:
                                          |                                     :         :            :
                                          |Storm Drainage                       :      11 :       9.57%:
                                          |Environmental Studies                :      15 :      13.04%:
                                          |Financial Analysis                   :      10 :       8.70%:
                                          |Project Development Scheduling       :       9 :       7.83%:
                                          |Marketing/Feasibility Studies        :      14 :      12.17%:
                                          |                                     :         :            :
                                          |Post Construction/Evaluation         :      12 :      10.43%:
                                          |Schematic/Preliminary Land Planning  :      16 :      13.91%:
                                          |Pre-Design                           :      12 :      10.43%:
                                          |Site Selection                       :      11 :       9.57%:
                                          |Planting Plans                       :      14 :      12.17%:
                                          |                                     :         :            :
                                          |Master Plans                         :      20 :      17.39%:
                                          |Preliminary Construction Cost Estimating :  25 :      21.74%:
                                          |Irrigation                           :      13 :      11.30%:
                                          |Feasibility Studies                  :      18 :      15.65%:
                                          |Presentation Graphics/Public Presentations : 16 :     13.91%:
                                          |                                     :         :            :
                                          |Design Team Coordination             :      12 :      10.43%:
                                          |Construction Documents               :      13 :      11.30%:
                                          |Site Layout                          :      19 :      16.52%:
                                          |Program Development                 :      12 :     10.43%:
                                          |Lighting design                      :      21 :      18.26%:
                                          |                                     :         :            :
                                          |Bidding(Negotiations)                :      10 :       8.70%:
                                          |Project Administration               :      15 :      13.04%:
                                          |Details, Materials, Specifications   :      12 :      10.43%:
                                          |Road Alignment and Profiles          :       7 :       6.09%:
                                          |Life Cycle/Value Analysis            :      20 :      17.39%:
                                          |                                     :         :            :
                                          |Grading and Drainage Details         :      19 :      16.52%:
                                          |Sewer Collection                     :       6 :       5.22%:
                                          |Water Distribution                   :       8 :       6.96%:
                                          |Construction Administration          :      14 :      12.17%:
                                          |Maintenance Reviews and Scheduling   :       9 :       7.83%:
                                          |Other, please explain                :       3 :       2.61%:
                                          |-------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

```
VARIABLE= Southeast States

Response using variable:      145

TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=     222 |
Q2=   309 |  Q11=     233 |
Q3=   317 |  Q12=     187 |
Q4=   317 |  Q13=     270 |
Q5=   314 |  Q14=     315 |
Q6=   312 |  Q15=     305 |
Q7=   309 |  Q16=     301 |
Q8=   313 |  Q17=     306 |
Q9=   293 |               |
==========|===============|
```

```
|==========================:=========:==========:
|QUESTIONS                 :Raw Data :Percentage:
|==========================:=========:==========:
|QUESTION 1 --REGIONS      :         :          :
|Northeast States          :      55 :    13.72%:
|Southeast States          :     145 :    36.16%:
|Great Lake States         :      43 :    10.72%:
|Midwest States            :      32 :     7.98%:
|Southwest States          :      46 :    11.47%:
|Pacific Northwest States  :      23 :     5.74%:
|Pacific Southwest States  :      43 :    10.72%:
|International Markets     :      14 :     3.49%:
|                          :         :          :
|--------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT   :         :          :
|Building                  :      48 :    33.10%:
|Land                      :       9 :     6.21%:
|Both                      :      87 :    60.00%:
|--------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV. :         :          :
|Commercial                :     106 :    21.37%:
|Industrial                :      90 :    18.15%:
|Residential               :      64 :    12.90%:
|Office                    :     113 :    22.78%:
|Resort/Recreation         :      30 :     6.05%:
|Shopping Centers          :      70 :    14.11%:
|Other                     :      23 :     4.64%:
|--------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS :         :          :
|AIA                       :      44 :    11.22%:
|APA                       :      14 :     3.57%:
|ASCE                      :      18 :     4.59%:
|ASLA                      :      14 :     3.57%:
|ARROA                     :      11 :     2.81%:
|ULI                       :      81 :    20.66%:
|NAHB                      :      29 :     7.40%:
|NAIOP                     :     117 :    29.85%:
|Other                     :      41 :    10.46%:
|--------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :        :          :
|0 - 10                    :      27 :    18.62%:
|11 -20                    :      52 :    35.86%:
|21 - 30                   :      37 :    25.52%:
|31 - 40                   :       7 :     4.83%:
|41 - 50                   :       5 :     3.45%:
|Over 51                   :      15 :    10.34%:
|--------------------------:---------:----------:
```

QUESTION 6--ACRES		
0 - 30	29	20.00%
30 - 100	32	22.07%
101 - 200	22	15.17%
201 - 300	11	7.59%
301 - 500	16	11.03%
Over 500	31	21.38%
QUESTION 7--$ VOLUME		
0 - $100,000	3	2.07%
$100,00 - $250,000	2	1.38%
$250,000 - $500,000	1	0.69%
$500,000 - 1 million	6	4.14%
1 million - 2 million	7	4.83%
2 million - 5 million	17	11.72%
Over 5 million dollars	106	73.10%
QUESTION 8--USE LA'S		
Yes	137	94.48%
No	8	5.52%
QUESTION 13--STAGES		
Early	75	51.72%
Middle	26	17.93%
Late	17	11.72%
QUESTION 14--EMPLOY IN FIRM		
Yes	27	18.62%
No	116	80.00%
QUESTION 15--SUPERVISORY		0.00%
Never	36	24.83%
Almost Never	30	20.69%
Sometimes	46	31.72%
Almost Never	16	11.03%
Always	13	8.97%
QUESTION 16--RATING		0.00%
Inferior	0	0.00%
Fair	31	21.38%
Good	73	50.34%
Excellent	24	16.55%
No Basis For Judgement	6	4.14%
QUESTION 17--VALUE		0.00%
Of No Value	0	0.00%
Minimal Value	8	5.52%
Moderate Value	36	24.83%
Considerable Value	60	41.38%
Major Value	36	24.83%

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Southeast States                    H  I  R  E  D                                          QUESTION # 9
                                              |S  E  R  V  I  C  E  S                            :Raw Data :Percentages :
Response using variable:      145             |-----------------------------------------------:---------:------------:
                                              |Design Development/Site Planning                :    112 :      77.24%:
                                              |Agency Consul./Review Approv./Zoning Assist.    :     80 :      55.17%:
TOTAL # SENT          1283                    |Project Financing/Project Budgeting             :     33 :      22.76%:
TOTAL # RETURNED       318                    |Site Analysis                                   :     83 :      57.24%:
RESPONSE RATE       24.79%                    |Erosion Control                                 :     62 :      42.76%:
                                              |                                                :        :            :
TOTAL # OF RESPONSES PER QUESTION             |Stone Drainage                                  :     34 :      23.45%:
Q1=   314 |  Q10=    222 |                    |Environmental Studies                           :     36 :      24.83%:
Q2=   309 |  Q11=    233 |                    |Financial Analysis                              :      7 :       4.83%:
Q3=   317 |  Q12=    187 |                    |Project Development Scheduling                  :     21 :      14.48%:
Q4=   317 |  Q13=    270 |                    |Marketing/Feasibility Studies                   :     15 :      10.34%:
Q5=   314 |  Q14=    315 |                    |                                                :        :            :
Q6=   312 |  Q15=    305 |                    |Post Construction/Evaluation                    :     30 :      20.69%:
Q7=   309 |  Q16=    301 |                    |Schematic/Preliminary Land Planning             :     86 :      59.31%:
Q8=   313 |  Q17=    306 |                    |Pre-Design                                      :     51 :      35.17%:
Q9=   293 |              |                    |Site Selection                                  :     19 :      13.10%:
==========|==============|                    |Planting Plans                                  :    120 :      82.76%:
                                              |                                                :        :            :
                                              |Master Plans                                    :     80 :      55.17%:
                                              |Preliminary Construction Cost Estimating        :     48 :      33.10%:
                                              |Irrigation                                      :     97 :      66.90%:
                                              |Feasibility Studies                             :     26 :      17.93%:
                                              |Presentation Graphics/Public Presentations      :     83 :      57.24%:
                                              |                                                :        :            :
                                              |Design Team Coordination                        :     29 :      20.00%:
                                              |Construction Documents                          :     60 :      41.38%:
                                              |Site Layout                                     :     75 :      51.72%:
                                              |Program Development                             :     32 :      22.07%:
                                              |Lighting design                                 :     51 :      35.17%:
                                              |                                                :        :            :
                                              |Bidding(Negotiations)                           :     48 :      33.10%:
                                              |Project Administration                          :     44 :      30.34%:
                                              |Details, Materials, Specifications              :     88 :      60.69%:
                                              |Road Alignment and Profiles                     :     34 :      23.45%:
                                              |Life Cycle/Value Analysis                       :     13 :       8.97%:
                                              |                                                :        :            :
                                              |Grading and Drainage Details                    :     47 :      32.41%:
                                              |Sewer Collection                                :     16 :      11.03%:
                                              |Water Distribution                              :     19 :      13.10%:
                                              |Construction Administration                     :     19 :      13.10%:
                                              |Maintenance Reviews and Scheduling              :     35 :      24.14%:
                                              |Other, please explain                           :      2 :       1.38%:
                                              |-----------------------------------------------:---------:------------:
```

```
VARIABLE= Southeast States                P E R C E I V E                          QUESTION # 10
                                          |S E R V I C E S                             :Raw Data :Percentages :
                                          |--------------------------------------------:---------:------------:
                                          |Design Development/Site Planning            :      78 :     53.79%:
                                          |Agency Consul./Review Approv./Zoning Assist. :      67 :     46.21%:
                                          |Project Financing/Project Budgeting         :      23 :     15.86%:
                                          |Site Analysis                               :      63 :     43.45%:
                                          |Erosion Control                             :      56 :     38.62%:
                                          |                                            :         :           :
                                          |Storm Drainage                              :      32 :     22.07%:
                                          |Environmental Studies                       :      38 :     26.21%:
                                          |Financial Analysis                          :       1 :      0.69%:
                                          |Project Development Scheduling              :      17 :     11.72%:
                                          |Marketing/Feasibility Studies               :      11 :      7.59%:
                                          |                                            :         :           :
                                          |Post Construction/Evaluation                :      28 :     19.31%:
                                          |Schematic/Preliminary Land Planning         :      71 :     48.97%:
                                          |Pre-Design                                  :      47 :     32.41%:
                                          |Site Selection                              :      22 :     15.17%:
                                          |Planting Plans                              :      97 :     66.90%:
                                          |                                            :         :           :
                                          |Master Plans                                :      65 :     44.83%:
                                          |Preliminary Construction Cost Estimating    :      35 :     24.14%:
                                          |Irrigation                                  :      70 :     48.28%:
                                          |Feasibility Studies                         :      24 :     16.55%:
                                          |Presentation Graphics/Public Presentations  :      76 :     52.41%:
                                          |                                            :         :           :
                                          |Design Team Coordination                    :      24 :     16.55%:
                                          |Construction Documents                      :      49 :     33.79%:
                                          |Site Layout                                 :      55 :     37.93%:
                                          |Program Development                       :      28 :     19.31%:
                                          |Lighting design                             :      47 :     32.41%:
                                          |                                            :         :           :
                                          |Bidding(Negotiations)                       :      42 :     28.97%:
                                          |Project Administration                      :      31 :     21.38%:
                                          |Details, Materials, Specifications          :      66 :     45.52%:
                                          |Road Alignment and Profiles                 :      25 :     17.24%:
                                          |Life Cycle/Value Analysis                   :      17 :     11.72%:
                                          |                                            :         :           :
                                          |Grading and Drainage Details                :      45 :     31.03%:
                                          |Sewer Collection                            :      15 :     10.34%:
                                          |Water Distribution                          :      18 :     12.41%:
                                          |Construction Administration                 :      17 :     11.72%:
                                          |Maintenance Reviews and Scheduling          :      34 :     23.45%:
                                          |Other, please explain                       :       3 :      2.07%:
                                          |--------------------------------------------:---------:------------:
```

```
VARIABLE= Southeast States         P R O V I D E                                  QUESTION # 11
                                   |S E R V I C E S                        :Raw Data :Percentages :
                                   |---------------------------------------:---------:------------:
                                   |Design Development/Site Planning       :      86 :     59.31%:
                                   |Agency Consul./Review Approv./Zoning Assist. :  78 :     53.79%:
                                   |Project Financing/Project Budgeting     :      36 :     24.83%:
                                   |Site Analysis                          :      74 :     51.03%:
                                   |Erosion Control                        :      74 :     51.03%:
                                   |                                       :         :            :
                                   |Storm Drainage                         :      46 :     31.72%:
                                   |Environmental Studies                  :      50 :     34.48%:
                                   |Financial Analysis                     :       9 :      6.21%:
                                   |Project Development Scheduling         :      28 :     19.31%:
                                   |Marketing/Feasibility Studies          :      19 :     13.10%:
                                   |                                       :         :            :
                                   |Post Construction/Evaluation           :      49 :     33.79%:
                                   |Schematic/Preliminary Land Planning    :      76 :     52.41%:
                                   |Pre-Design                             :      57 :     39.31%:
                                   |Site Selection                         :      43 :     29.66%:
                                   |Planting Plans                         :     103 :     71.03%:
                                   |                                       :         :            :
                                   |Master Plans                           :      79 :     54.48%:
                                   |Preliminary Construction Cost Estimating :    59 :     40.69%:
                                   |Irrigation                             :      88 :     60.69%:
                                   |Feasibility Studies                    :      34 :     23.45%:
                                   |Presentation Graphics/Public Presentations :  81 :     55.86%:
                                   |                                       :         :            :
                                   |Design Team Coordination               :      38 :     26.21%:
                                   |Construction Documents                 :      58 :     40.00%:
                                   |Site Layout                            :      68 :     46.90%:
                                   |Program Development                   :      36 :     24.83%:
                                   |Lighting design                        :      63 :     43.45%:
                                   |                                       :         :            :
                                   |Bidding(Negotiations)                  :      58 :     40.00%:
                                   |Project Administration                 :      52 :     35.86%:
                                   |Details, Materials, Specifications     :      77 :     53.10%:
                                   |Road Alignment and Profiles            :      35 :     24.14%:
                                   |Life Cycle/Value Analysis              :      34 :     23.45%:
                                   |                                       :         :            :
                                   |Grading and Drainage Details           :      51 :     35.17%:
                                   |Sewer Collection                       :      21 :     14.48%:
                                   |Water Distribution                     :      23 :     15.86%:
                                   |Construction Administration            :      30 :     20.69%:
                                   |Maintenance Reviews and Scheduling     :      46 :     31.72%:
                                   |Other, please explain                  :       2 :      1.38%:
                                   |---------------------------------------:---------:------------:
```

```
VARIABLE= Southeast States          I  M  P  R  O  V  E                               QUESTION # 12
                                    |S  E  R  V  I  C  E  S                    :Raw Data :Percentages :
                                    |------------------------------------------:---------:------------:
                                    |Design Development/Site Planning          :     17 :      11.72%:
                                    |Agency Consul./Review Approv./Zoning Assist. :  31 :      21.38%:
                                    |Project Financing/Project Budgeting       :     30 :      20.69%:
                                    |Site Analysis                             :     24 :      16.55%:
                                    |Erosion Control                           :     21 :      14.48%:
                                    |                                          :        :            :
                                    |Storm Drainage                            :     17 :      11.72%:
                                    |Environmental Studies                     :     16 :      11.03%:
                                    |Financial Analysis                        :     12 :       8.28%:
                                    |Project Development Scheduling            :     12 :       8.28%:
                                    |Marketing/Feasibility Studies             :     18 :      12.41%:
                                    |                                          :        :            :
                                    |Post Construction/Evaluation              :     19 :      13.10%:
                                    |Schematic/Preliminary Land Planning       :     15 :      10.34%:
                                    |Pre-Design                                :      9 :       6.21%:
                                    |Site Selection                            :     14 :       9.66%:
                                    |Planting Plans                            :     18 :      12.41%:
                                    |                                          :        :            :
                                    |Master Plans                              :     27 :      18.62%:
                                    |Preliminary Construction Cost Estimating  :     32 :      22.07%:
                                    |Irrigation                                :     21 :      14.48%:
                                    |Feasibility Studies                       :     20 :      13.79%:
                                    |Presentation Graphics/Public Presentations :    17 :      11.72%:
                                    |                                          :        :            :
                                    |Design Team Coordination                  :     19 :      13.10%:
                                    |Construction Documents                    :     12 :       8.28%:
                                    |Site Layout                               :     15 :      10.34%:
                                    |Program Development                      :     12 :       8.28%:
                                    |Lighting design                           :     25 :      17.24%:
                                    |                                          :        :            :
                                    |Bidding(Negotiations)                     :     15 :      10.34%:
                                    |Project Administration                    :     20 :      13.79%:
                                    |Details, Materials, Specifications        :     18 :      12.41%:
                                    |Road Alignment and Profiles               :     13 :       8.97%:
                                    |Life Cycle/Value Analysis                 :     27 :      18.62%:
                                    |                                          :        :            :
                                    |Grading and Drainage Details              :     17 :      11.72%:
                                    |Sewer Collection                          :     10 :       6.90%:
                                    |Water Distribution                        :      9 :       6.21%:
                                    |Construction Administration               :     12 :       8.28%:
                                    |Maintenance Reviews and Scheduling        :     18 :      12.41%:
                                    |Other, please explain                     :      2 :       1.38%:
                                    |------------------------------------------:---------:------------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Great Lake States

Response using variable:       62

TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
                         D A T A

|===========================;=========;==========:
|QUESTIONS                  :Raw Data :Percentage:
|===========================;=========;==========:
|QUESTION 1 --REGIONS       :         :          :
|Northeast States           :      34 :    13.18%:
|Southeast States           :      43 :    16.67%:
|Great Lake States          :      62 :    24.03%:
|Midwest States             :      27 :    10.47%:
|Southwest States           :      34 :    13.18%:
|Pacific Northwest States   :      17 :     6.59%:
|Pacific Southwest States   :      30 :    11.63%:
|International Markets      :      11 :     4.26%:
|                           :         :          :
|---------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT    :         :          :
|Building                   :      25 :    40.32%:
|Land                       :       3 :     4.84%:
|Both                       :      34 :    54.84%:
|---------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV.  :         :          :
|Commercial                 :      38 :    18.72%:
|Industrial                 :      35 :    17.24%:
|Residential                :      27 :    13.30%:
|Office                     :      44 :    21.67%:
|Resort/Recreation          :      19 :     9.36%:
|Shopping Centers           :      28 :    13.79%:
|Other                      :      12 :     5.91%:
|---------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS  :         :          :
|AIA                        :      23 :    16.08%:
|APA                        :       2 :     1.40%:
|ASCE                       :      11 :     7.69%:
|ASLA                       :       5 :     3.50%:
|ARRDA                      :       4 :     2.80%:
|ULI                        :      34 :    23.78%:
|NAHB                       :       9 :     6.29%:
|NAIOP                      :      40 :    27.97%:
|Other                      :      15 :    10.49%:
|---------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :         :          :
|0 - 10                     :      11 :    17.74%:
|11 -20                     :      15 :    24.19%:
|21 - 30                    :      18 :    29.03%:
|31 - 40                    :       8 :    12.90%:
|41 - 50                    :       3 :     4.84%:
|Over 51                    :       5 :     8.06%:
|---------------------------:---------:----------:
```

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :      12 :    19.35%:
|30 - 100                  :      15 :    24.19%:
|101 - 200                 :       7 :    11.29%:
|201 - 300                 :       2 :     3.23%:
|301 - 500                 :       6 :     9.68%:
|Over 500                  :      19 :    30.65%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :       2 :     3.23%:
|$100,00 - $250,000        :       2 :     3.23%:
|$250,000 - $500,000       :       1 :     1.61%:
|$500,000 - 1 million      :       0 :     0.00%:
|1 million - 2 million     :       0 :     0.00%:
|2 million - 5 million     :       7 :    11.29%:
|Over 5 million dollars    :      49 :    79.03%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :      54 :    87.10%:
|No                        :       8 :    12.90%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :      29 :    46.77%:
|Middle                    :      16 :    25.81%:
|Late                      :       9 :    14.52%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :       8 :    12.90%:
|No                        :      53 :    85.48%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :      19 :    30.65%:
|Almost Never              :      14 :    22.58%:
|Sometimes                 :      15 :    24.19%:
|Almost Never              :       8 :    12.90%:
|Always                    :       4 :     6.45%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :       0 :     0.00%:
|Fair                      :      12 :    19.35%:
|Good                      :      29 :    46.77%:
|Excellent                 :      12 :    19.35%:
|No Basis For Judgement    :       4 :     6.45%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :       0 :     0.00%:
|Minimal Value             :       2 :     3.23%:
|Moderate Value            :      18 :    29.03%:
|Considerable Value        :      27 :    43.55%:
|Major Value               :      11 :    17.74%:
|--------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Great Lake States

Response using variable:       62


TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE        24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
H  I  R  E  D                                              QUESTION # 9
|S  E  R  V  I  C  E  S                           :Raw Data :Percentages :
|-----------------------------------------------:---------:------------:
|Design Development/Site Planning               :      45 :     72.58%:
|Agency Consul./Review Approv./Zoning Assist.   :      36 :     58.06%:
|Project Financing/Project Budgeting            :      12 :     19.35%:
|Site Analysis                                  :      33 :     53.23%:
|Erosion Control                                :      24 :     38.71%:
|                                               :         :           :
|Storm Drainage                                 :      16 :     25.81%:
|Environmental Studies                          :      12 :     19.35%:
|Financial Analysis                             :       1 :      1.61%:
|Project Development Scheduling                 :       7 :     11.29%:
|Marketing/Feasibility Studies                  :       5 :      8.06%:
|                                               :         :           :
|Post Construction/Evaluation                   :       9 :     14.52%:
|Schematic/Preliminary Land Planning            :      36 :     58.06%:
|Pre-Design                                     :      23 :     37.10%:
|Site Selection                                 :      10 :     16.13%:
|Planting Plans                                 :      52 :     83.87%:
|                                               :         :           :
|Master Plans                                   :      25 :     40.32%:
|Preliminary Construction Cost Estimating       :      19 :     30.65%:
|Irrigation                                     :      36 :     58.06%:
|Feasibility Studies                            :       8 :     12.90%:
|Presentation Graphics/Public Presentations     :      34 :     54.84%:
|                                               :         :           :
|Design Team Coordination                       :      11 :     17.74%:
|Construction Documents                         :      26 :     41.94%:
|Site Layout                                    :      29 :     46.77%:
|Program Development                            :      13 :     20.97%:
|Lighting design                                :      25 :     40.32%:
|                                               :         :           :
|Bidding(Negotiations)                          :      20 :     32.26%:
|Project Administration                         :      14 :     22.58%:
|Details, Materials, Specifications             :      31 :     50.00%:
|Road Alignment and Profiles                    :      13 :     20.97%:
|Life Cycle/Value Analysis                      :       6 :      9.68%:
|                                               :         :           :
|Grading and Drainage Details                   :      20 :     32.26%:
|Sewer Collection                               :       8 :     12.90%:
|Water Distribution                             :       9 :     14.52%:
|Construction Administration                    :       7 :     11.29%:
|Maintenance Reviews and Scheduling             :      15 :     24.19%:
|Other, please explain                          :       1 :      1.61%:
|-----------------------------------------------:---------:------------:
```

```
VARIABLE= Great Lake States          P E R C E I V E                                         QUESTION # 10
                                    |S E R V I C E S                              :Raw Data :Percentages :
                                    |---------------------------------------------:---------:------------:
                                    |Design Development/Site Planning             :      38 :      61.29%:
                                    |Agency Consul./Review Approv./Zoning Assist. :      31 :      50.00%:
                                    |Project Financing/Project Budgeting          :      12 :      19.35%:
                                    |Site Analysis                                :      27 :      43.55%:
                                    |Erosion Control                              :      28 :      45.16%:
                                    |                                             :         :            :
                                    |Storm Drainage                               :      17 :      27.42%:
                                    |Environmental Studies                        :      17 :      27.42%:
                                    |Financial Analysis                           :       2 :       3.23%:
                                    |Project Development Scheduling               :       8 :      12.90%:
                                    |Marketing/Feasibility Studies                :       8 :      12.90%:
                                    |                                             :         :            :
                                    |Post Construction/Evaluation                 :      13 :      20.97%:
                                    |Schematic/Preliminary Land Planning          :      31 :      50.00%:
                                    |Pre-Design                                   :      25 :      40.32%:
                                    |Site Selection                               :      12 :      19.35%:
                                    |Planting Plans                               :      46 :      74.19%:
                                    |                                             :         :            :
                                    |Master Plans                                 :      26 :      41.94%:
                                    |Preliminary Construction Cost Estimating     :      18 :      29.03%:
                                    |Irrigation                                   :      30 :      48.39%:
                                    |Feasibility Studies                          :      11 :      17.74%:
                                    |Presentation Graphics/Public Presentations   :      32 :      51.61%:
                                    |                                             :         :            :
                                    |Design Team Coordination                     :      12 :      19.35%:
                                    |Construction Documents                       :      24 :      38.71%:
                                    |Site Layout                                  :      25 :      40.32%:
                                    |Program Development                          :      17 :      27.42%:
                                    |Lighting design                              :      23 :      37.10%:
                                    |                                             :         :            :
                                    |Bidding(Negotiations)                        :      17 :      27.42%:
                                    |Project Administration                       :      12 :      19.35%:
                                    |Details, Materials, Specifications           :      27 :      43.55%:
                                    |Road Alignment and Profiles                  :      10 :      16.13%:
                                    |Life Cycle/Value Analysis                    :       4 :       6.45%:
                                    |                                             :         :            :
                                    |Grading and Drainage Details                 :      20 :      32.26%:
                                    |Sewer Collection                             :       8 :      12.90%:
                                    |Water Distribution                           :       9 :      14.52%:
                                    |Construction Administration                  :       7 :      11.29%:
                                    |Maintenance Reviews and Scheduling           :      15 :      24.19%:
                                    |Other, please explain                        :       1 :       1.61%:
                                    |---------------------------------------------:---------:------------:
```

```
VARIABLE= Great Lake States                     P R O V I D E                                QUESTION # 11
                                               |S E R V I C E S                       :Raw Data :Percentages :
                                               |--------------------------------------:---------:------------:
                                               |Design Development/Site Planning      :    40 :      64.52%:
                                               |Agency Consul./Review Approv./Zoning Assist. :    32 :      51.61%:
                                               |Project Financing/Project Budgeting   :    18 :      29.03%:
                                               |Site Analysis                         :    30 :      48.39%:
                                               |Erosion Control                       :    31 :      50.00%:
                                               |                                      :       :            :
                                               |Storm Drainage                        :    19 :      30.65%:
                                               |Environmental Studies                 :    21 :      33.87%:
                                               |Financial Analysis                    :     5 :       8.06%:
                                               |Project Development Scheduling        :    14 :      22.58%:
                                               |Marketing/Fesaibility Studies         :    10 :      16.13%:
                                               |                                      :       :            :
                                               |Post Construction/Evaluation          :    22 :      35.48%:
                                               |Schematic/Preliminary Land Planning   :    33 :      53.23%:
                                               |Pre-Design                            :    26 :      41.94%:
                                               |Site Selection                        :    19 :      30.65%:
                                               |Planting Plans                        :    44 :      70.97%:
                                               |                                      :       :            :
                                               |Master Plans                          :    30 :      48.39%:
                                               |Preliminary Construction Cost Estimating :    25 :      40.32%:
                                               |Irrigation                            :    34 :      54.84%:
                                               |Fesaibility Studies                   :    13 :      20.97%:
                                               |Presentation Graphics/Public Presentations :    33 :      53.23%:
                                               |                                      :       :            :
                                               |Design Team Coordination              :    16 :      25.81%:
                                               |Construction Documents                :    24 :      38.71%:
                                               |Site Layout                           :    29 :      46.77%:
                                               |Program Development                  :    19 :     30.65%:
                                               |Lighting design                       :    29 :      46.77%:
                                               |                                      :       :            :
                                               |Bidding(Negotiations)                 :    23 :      37.10%:
                                               |Project Administration                :    20 :      32.26%:
                                               |Details, Materials, Specifications    :    29 :      46.77%:
                                               |Road Alignment and Profiles           :    14 :      22.58%:
                                               |Life Cycle/Value Analysis             :    11 :      17.74%:
                                               |                                      :       :            :
                                               |Grading and Drainage Details          :    21 :      33.87%:
                                               |Sewer Collection                      :    10 :      16.13%:
                                               |Water Distribution                    :    12 :      19.35%:
                                               |Construction Administration           :    13 :      20.97%:
                                               |Maintenance Reviews and Scheduling    :    21 :      33.87%:
                                               |Other, please explain                 :     0 :       0.00%:
                                               |--------------------------------------:---------:------------:
```

```
VARIABLE= Great Lake States          I  M  P  R  O  V  E                           QUESTION # 12
                                    |S  E  R  V  I  C  E  S                  :Raw Data :Percentages :
                                    |----------------------------------------:---------:------------:
                                    |Design Development/Site Planning        :       7 :      11.29%:
                                    |Agency Consul./Review Approv./Zoning Assist. :  9 :      14.52%:
                                    |Project Financing/Project Budgeting     :      10 :      16.13%:
                                    |Site Analysis                           :       5 :       8.06%:
                                    |Erosion Control                         :       6 :       9.68%:
                                    |                                        :         :            :
                                    |Storm Drainage                          :       4 :       6.45%:
                                    |Environmental Studies                   :       3 :       4.84%:
                                    |Financial Analysis                      :       4 :       6.45%:
                                    |Project Development Scheduling          :       5 :       8.06%:
                                    |Marketing/Feasibility Studies           :       7 :      11.29%:
                                    |                                        :         :            :
                                    |Post Construction/Evaluation            :       7 :      11.29%:
                                    |Schematic/Preliminary Land Planning     :       4 :       6.45%:
                                    |Pre-Design                              :       3 :       4.84%:
                                    |Site Selection                          :       6 :       9.68%:
                                    |Planting Plans                          :       4 :       6.45%:
                                    |                                        :         :            :
                                    |Master Plans                            :       4 :       6.45%:
                                    |Preliminary Construction Cost Estimating :     11 :      17.74%:
                                    |Irrigation                              :       3 :       4.84%:
                                    |Feasibility Studies                     :       6 :       9.68%:
                                    |Presentation Graphics/Public Presentations :    6 :       9.68%:
                                    |                                        :         :            :
                                    |Design Team Coordination                :       0 :       0.00%:
                                    |Construction Documents                  :       3 :       4.84%:
                                    |Site Layout                             :       4 :       6.45%:
                                    |Program Development                    :       4 :      6.45%:
                                    |Lighting design                         :      10 :      16.13%:
                                    |                                        :         :            :
                                    |Bidding(Negotiations)                   :       5 :       8.06%:
                                    |Project Administration                  :       8 :      12.90%:
                                    |Details, Materials, Specifications      :       3 :       4.84%:
                                    |Road Alignment and Profiles             :       2 :       3.23%:
                                    |Life Cycle/Value Analysis               :       5 :       8.06%:
                                    |                                        :         :            :
                                    |Grading and Drainage Details            :       9 :      14.52%:
                                    |Sewer Collection                        :       6 :       9.68%:
                                    |Water Distribution                      :       5 :       8.06%:
                                    |Construction Administration             :       4 :       6.45%:
                                    |Maintenance Reviews and Scheduling      :       6 :       9.68%:
                                    |Other, please explain                   :       0 :       0.00%:
                                    |----------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= Midwest States

Response using variable: 54

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	28	12.33%
Southeast States	32	14.10%
Great Lake States	27	11.89%
Midwest States	54	23.79%
Southwest States	31	13.66%
Pacific Northwest States	18	7.93%
Pacific Southwest States	27	11.89%
International Markets	10	4.41%
QUESTION 2--DEVELOPMENT		
Building	18	33.33%
Land	3	5.56%
Both	31	57.41%
QUESTION 3--SPECIFIC DEV.		
Commercial	39	21.67%
Industrial	33	18.33%
Residential	18	10.00%
Office	39	21.67%
Resort/Recreation	13	7.22%
Shopping Centers	27	15.00%
Other	11	6.11%
QUESTION 4--ORGANIZATIONS		
AIA	22	17.32%
APA	2	1.57%
ASCE	9	7.09%
ASLA	3	2.36%
ARROA	3	2.36%
ULI	29	22.83%
NAHB	6	4.72%
NAIOP	37	29.13%
Other	16	12.60%
QUESTION 5--YRS EXPERIENCE		
0 - 10	6	11.11%
11 -20	20	37.04%
21 - 30	16	29.63%
31 - 40	4	7.41%
41 - 50	0	0.00%
Over 51	7	12.96%

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :      14 :    25.93%:
|30 - 100                  :      13 :    24.07%:
|101 - 200                 :       4 :     7.41%:
|201 - 300                 :       3 :     5.56%:
|301 - 500                 :       5 :     9.26%:
|Over 500                  :      14 :    25.93%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :       0 :     0.00%:
|$100,00 - $250,000        :       2 :     3.70%:
|$250,000 - $500,000       :       0 :     0.00%:
|$500,000 - 1 million      :       1 :     1.85%:
|1 million - 2 million     :       5 :     9.26%:
|2 million - 5 million     :       6 :    11.11%:
|Over 5 million dollars    :      39 :    72.22%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :      51 :    94.44%:
|No                        :       3 :     5.56%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :      29 :    53.70%:
|Middle                    :      13 :    24.07%:
|Late                      :       8 :    14.81%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :       6 :    11.11%:
|No                        :      48 :    88.89%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :      17 :    31.48%:
|Almost Never              :      11 :    20.37%:
|Sometimes                 :      13 :    24.07%:
|Almost Never              :       8 :    14.81%:
|Always                    :       3 :     5.56%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :       0 :     0.00%:
|Fair                      :      12 :    22.22%:
|Good                      :      27 :    50.00%:
|Excellent                 :       9 :    16.67%:
|No Basis For Judgement    :       4 :     7.41%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :       0 :     0.00%:
|Minimal Value             :       5 :     9.26%:
|Moderate Value            :      14 :    25.93%:
|Considerable Value        :      26 :    48.15%:
|Major Value               :       8 :    14.81%:
|--------------------------:---------:----------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Midwest States

Response using variable: 54

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTION # 9

HIRED SERVICES	Raw Data	Percentages
Design Development/Site Planning	40	74.07%
Agency Consul./Review Approv./Zoning Assist.	31	57.41%
Project Financing/Project Budgeting	11	20.37%
Site Analysis	29	53.70%
Erosion Control	22	40.74%
Storm Drainage	15	27.78%
Environmental Studies	13	24.07%
Financial Analysis	2	3.70%
Project Development Scheduling	8	14.81%
Marketing/Feasibility Studies	6	11.11%
Post Construction/Evaluation	9	16.67%
Schematic/Preliminary Land Planning	30	55.56%
Pre-Design	21	38.89%
Site Selection	10	18.52%
Planting Plans	47	87.04%
Master Plans	19	35.19%
Preliminary Construction Cost Estimating	15	27.78%
Irrigation	34	62.96%
Feasibility Studies	6	11.11%
Presentation Graphics/Public Presentations	33	61.11%
Design Team Coordination	9	16.67%
Construction Documents	21	38.89%
Site Layout	25	46.30%
Program Development	11	20.37%
Lighting design	19	35.19%
Bidding(Negotiations)	16	29.63%
Project Administration	15	27.78%
Details, Materials, Specifications	28	51.85%
Road Alignment and Profiles	16	29.63%
Life Cycle/Value Analysis	6	11.11%
Grading and Drainage Details	20	37.04%
Sewer Collection	9	16.67%
Water Distribution	10	18.52%
Construction Administration	8	14.81%
Maintenance Reviews and Scheduling	15	27.78%
Other, please explain	1	1.85%

```
VARIABLE= Midwest States          P E R C E I V E                                     QUESTION # 10
                                  |S E R V I C E S                            :Raw Data :Percentages :
                                  |-------------------------------------------:---------:------------:
                                  |Design Development/Site Planning           :     29 :     53.70%:
                                  |Agency Consul./Review Approv./Zoning Assist. :   28 :     51.85%:
                                  |Project Financing/Project Budgeting        :      9 :     16.67%:
                                  |Site Analysis                              :     23 :     42.59%:
                                  |Erosion Control                            :     25 :     46.30%:
                                  |                                           :        :           :
                                  |Storm Drainage                             :     17 :     31.48%:
                                  |Environmental Studies                      :     18 :     33.33%:
                                  |Financial Analysis                         :      3 :      5.56%:
                                  |Project Development Scheduling             :      6 :     11.11%:
                                  |Marketing/Feasibility Studies              :      7 :     12.96%:
                                  |                                           :        :           :
                                  |Post Construction/Evaluation               :      8 :     14.81%:
                                  |Schematic/Preliminary Land Planning        :     24 :     44.44%:
                                  |Pre-Design                                 :     25 :     46.30%:
                                  |Site Selection                             :     12 :     22.22%:
                                  |Planting Plans                             :     43 :     79.63%:
                                  |                                           :        :           :
                                  |Master Plans                               :     24 :     44.44%:
                                  |Preliminary Construction Cost Estimating   :     14 :     25.93%:
                                  |Irrigation                                 :     32 :     59.26%:
                                  |Feasibility Studies                        :      9 :     16.67%:
                                  |Presentation Graphics/Public Presentations :     30 :     55.56%:
                                  |                                           :        :           :
                                  |Design Team Coordination                   :      9 :     16.67%:
                                  |Construction Documents                     :     23 :     42.59%:
                                  |Site Layout                                :     23 :     42.59%:
                                  |Program Development                      :     12 :     22.22%:
                                  |Lighting design                            :     22 :     40.74%:
                                  |                                           :        :           :
                                  |Bidding(Negotiations)                      :     18 :     33.33%:
                                  |Project Administration                     :     14 :     25.93%:
                                  |Details, Materials, Specifications         :     29 :     53.70%:
                                  |Road Alignment and Profiles                :     10 :     18.52%:
                                  |Life Cycle/Value Analysis                  :      8 :     14.81%:
                                  |                                           :        :           :
                                  |Grading and Drainage Details               :     20 :     37.04%:
                                  |Sewer Collection                           :      9 :     16.67%:
                                  |Water Distribution                         :     12 :     22.22%:
                                  |Construction Administration                :      8 :     14.81%:
                                  |Maintenance Reviews and Scheduling         :     17 :     31.48%:
                                  |Other, please explain                      :      2 :      3.70%:
                                  |-------------------------------------------:---------:------------:
```

```
VARIABLE= Midwest States          P R O V I D E                                  QUESTION # 11
                                  |S E R V I C E S                              :Raw Data :Percentages :
                                  |---------------------------------------------:---------:------------:
                                  |Design Development/Site Planning             :     35 :      64.81%:
                                  |Agency Consul./Review Approv./Zoning Assist. :     34 :      62.96%:
                                  |Project Financing/Project Budgeting          :     18 :      33.33%:
                                  |Site Analysis                                :     33 :      61.11%:
                                  |Erosion Control                              :     34 :      62.96%:
                                  |                                             :        :            :
                                  |Storm Drainage                               :     23 :      42.59%:
                                  |Environmental Studies                        :     27 :      50.00%:
                                  |Financial Analysis                           :      8 :      14.81%:
                                  |Project Development Scheduling               :     14 :      25.93%:
                                  |Marketing/Feasibility Studies                :     11 :      20.37%:
                                  |                                             :        :            :
                                  |Post Construction/Evaluation                 :     19 :      35.19%:
                                  |Schematic/Preliminary Land Planning          :     32 :      59.26%:
                                  |Pre-Design                                   :     30 :      55.56%:
                                  |Site Selection                               :     24 :      44.44%:
                                  |Planting Plans                               :     43 :      79.63%:
                                  |                                             :        :            :
                                  |Master Plans                                 :     30 :      55.56%:
                                  |Preliminary Construction Cost Estimating     :     23 :      42.59%:
                                  |Irrigation                                   :     35 :      64.81%:
                                  |Feasibility Studies                          :     16 :      29.63%:
                                  |Presentation Graphics/Public Presentations   :     34 :      62.96%:
                                  |                                             :        :            :
                                  |Design Team Coordination                     :     14 :      25.93%:
                                  |Construction Documents                       :     25 :      46.30%:
                                  |Site Layout                                  :     26 :      48.15%:
                                  |Program Development                        :     19 :      35.19%:
                                  |Lighting design                              :     26 :      48.15%:
                                  |                                             :        :            :
                                  |Bidding(Negotiations)                        :     22 :      40.74%:
                                  |Project Administration                       :     20 :      37.04%:
                                  |Details, Materials, Specifications           :     33 :      61.11%:
                                  |Road Alignment and Profiles                  :     17 :      31.48%:
                                  |Life Cycle/Value Analysis                    :     18 :      33.33%:
                                  |                                             :        :            :
                                  |Grading and Drainage Details                 :     21 :      38.89%:
                                  |Sewer Collection                             :     12 :      22.22%:
                                  |Water Distribution                           :     15 :      27.78%:
                                  |Construction Administration                  :     15 :      27.78%:
                                  |Maintenance Reviews and Scheduling           :     21 :      38.89%:
                                  |Other, please explain                        :      1 :       1.85%:
                                  |---------------------------------------------:---------:------------:
```

```
VARIABLE= Midwest States              I  M  P  R  O  V  E                         QUESTION # 12
                                      |S  E  R  V  I  C  E  S                  :Raw Data :Percentages :
                                      |-------------------------------------------:---------:------------:
                                      |Design Development/Site Planning           :      7 :      12.96%:
                                      |Agency Consul./Review Approv./Zoning Assist. :    12 :      22.22%:
                                      |Project Financing/Project Budgeting        :     14 :      25.93%:
                                      |Site Analysis                              :      7 :      12.96%:
                                      |Erosion Control                            :      8 :      14.81%:
                                      |                                           :        :            :
                                      |Storm Drainage                             :      9 :      16.67%:
                                      |Environmental Studies                      :      9 :      16.67%:
                                      |Financial Analysis                         :      9 :      16.67%:
                                      |Project Development Scheduling             :      6 :      11.11%:
                                      |Marketing/Feasibility Studies              :     11 :      20.37%:
                                      |                                           :        :            :
                                      |Post Construction/Evaluation               :     11 :      20.37%:
                                      |Schematic/Preliminary Land Planning        :      7 :      12.96%:
                                      |Pre-Design                                 :      7 :      12.96%:
                                      |Site Selection                             :      6 :      11.11%:
                                      |Planting Plans                             :      8 :      14.81%:
                                      |                                           :        :            :
                                      |Master Plans                               :      8 :      14.81%:
                                      |Preliminary Construction Cost Estimating   :     12 :      22.22%:
                                      |Irrigation                                 :     11 :      20.37%:
                                      |Feasibility Studies                        :      9 :      16.67%:
                                      |Presentation Graphics/Public Presentations :     11 :      20.37%:
                                      |                                           :        :            :
                                      |Design Team Coordination                   :      5 :       9.26%:
                                      |Construction Documents                     :      8 :      14.81%:
                                      |Site Layout                                :      8 :      14.81%:
                                      |Program Development                      :      7 :      12.96%:
                                      |Lighting design                            :      8 :      14.81%:
                                      |                                           :        :            :
                                      |Bidding(Negotiations)                      :     10 :      18.52%:
                                      |Project Administrstion                     :      8 :      14.81%:
                                      |Details, Materials, Specifications         :     10 :      18.52%:
                                      |Road Alignment and Profiles                :      5 :       9.26%:
                                      |Life Cycle/Value Analysis                  :     10 :      18.52%:
                                      |                                           :        :            :
                                      |Grading and Drainage Details               :      9 :      16.67%:
                                      |Sewer Collection                           :      5 :       9.26%:
                                      |Water Distribution                         :      4 :       7.41%:
                                      |Construction Administration                :      6 :      11.11%:
                                      |Maintenance Reviews and Scheduling         :      7 :      12.96%:
                                      |Other, please explain                      :      1 :       1.85%:
                                      |-------------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= Southwest States

Response using variable: 70

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	33	11.62%
Southeast States	46	16.20%
Great Lake States	34	11.97%
Midwest States	31	10.92%
Southwest States	70	24.65%
Pacific Northwest States	20	7.04%
Pacific Southwest States	39	13.73%
International Markets	11	3.87%
QUESTION 2--DEVELOPMENT		
Building	20	28.57%
Land	8	11.43%
Both	42	60.00%
QUESTION 3--SPECIFIC DEV.		
Commercial	48	20.25%
Industrial	40	16.88%
Residential	37	15.61%
Office	48	20.25%
Resort/Recreation	20	8.44%
Shopping Centers	30	12.66%
Other	14	5.91%
QUESTION 4--ORGANIZATIONS		
AIA	26	15.20%
APA	6	3.51%
ASCE	12	7.02%
ASLA	7	4.09%
ARRDA	6	3.51%
ULI	36	21.05%
NAHB	12	7.02%
NAIOP	50	29.24%
Other	16	9.36%
QUESTION 5--YRS EXPERIENCE		
0 - 10	11	15.71%
11 -20	21	30.00%
21 - 30	25	35.71%
31 - 40	4	5.71%
41 - 50	2	2.86%
Over 51	6	8.57%

```
|---------------------------:---------:----------:
|QUESTION 6--ACRES          :         :          :
|0 - 30                     :      12 :    17.14%:
|30 - 100                   :      16 :    22.86%:
|101 - 200                  :       7 :    10.00%:
|201 - 300                  :       2 :     2.86%:
|301 - 500                  :       9 :    12.86%:
|Over 500                   :      23 :    32.86%:
|---------------------------:---------:----------:
|QUESTION 7--$ VOLUME       :         :          :
|0 - $100,000               :       1 :     1.43%:
|$100,00 - $250,000         :       4 :     5.71%:
|$250,000 - $500,000        :       0 :     0.00%:
|$500,000 - 1 million       :       2 :     2.86%:
|1 million - 2 million      :       6 :     8.57%:
|2 million - 5 million      :       5 :     7.14%:
|Over 5 million dollars     :      46 :    65.71%:
|---------------------------:---------:----------:
|QUESTION 8--USE LA'S       :         :          :
|Yes                        :      67 :    95.71%:
|No                         :       3 :     4.29%:
|---------------------------:---------:----------:
|QUESTION 13--STAGES        :         :          :
|Early                      :      33 :    47.14%:
|Middle                     :      17 :    24.29%:
|Late                       :       8 :    11.43%:
|---------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:         :          :
|Yes                        :      12 :    17.14%:
|No                         :      58 :    82.86%:
|---------------------------:---------:----------:
|QUESTION 15--SUPERVISORY   :         :          :
|Never                      :      18 :    25.71%:
|Almost Never               :      17 :    24.29%:
|Sometimes                  :      16 :    22.86%:
|Almost Never               :      10 :    14.29%:
|Always                     :       7 :    10.00%:
|---------------------------:---------:----------:
|QUESTION 16--RATING        :         :          :
|Inferior                   :       0 :     0.00%:
|Fair                       :      16 :    22.86%:
|Good                       :      36 :    51.43%:
|Excellent                  :      14 :    20.00%:
|No Basis For Judgement     :       2 :     2.86%:
|---------------------------:---------:----------:
|QUESTION 17--VALUE         :         :          :
|Of No Value                :       0 :     0.00%:
|Minimal Value              :       6 :     8.57%:
|Moderate Value             :      16 :    22.86%:
|Considerable Value         :      31 :    44.29%:
|Major Value                :      14 :    20.00%:
|---------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Southeast States

Response using variable:      145


TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 | Q10=    222 |
Q2=   309 | Q11=    233 |
Q3=   317 | Q12=    187 |
Q4=   317 | Q13=    270 |
Q5=   314 | Q14=    315 |
Q6=   312 | Q15=    305 |
Q7=   309 | Q16=    301 |
Q8=   313 | Q17=    306 |
Q9=   293 |             |
==========|=============|
```

```
H I R E D                                                   QUESTION # 9
|S E R V I C E S                                :Raw Data :Percentages :
|-----------------------------------------------:---------:------------:
|Design Development/Site Planning               :   112 :      77.24%:
|Agency Consul./Review Approv./Zoning Assist.   :    80 :      55.17%:
|Project Financing/Project Budgeting            :    33 :      22.76%:
|Site Analysis                                  :    83 :      57.24%:
|Erosion Control                                :    62 :      42.76%:
|                                               :       :            :
|Storm Drainage                                 :    34 :      23.45%:
|Environmental Studies                          :    36 :      24.83%:
|Financial Analysis                             :     7 :       4.83%:
|Project Development Scheduling                 :    21 :      14.48%:
|Marketing/Feasibility Studies                  :    15 :      10.34%:
|                                               :       :            :
|Post Construction/Evaluation                   :    30 :      20.69%:
|Schematic/Preliminary Land Planning            :    86 :      59.31%:
|Pre-Design                                     :    51 :      35.17%:
|Site Selection                                 :    19 :      13.10%:
|Planting Plans                                 :   120 :      82.76%:
|                                               :       :            :
|Master Plans                                   :    80 :      55.17%:
|Preliminary Construction Cost Estimating       :    48 :      33.10%:
|Irrigation                                     :    97 :      66.90%:
|Feasibility Studies                            :    26 :      17.93%:
|Presentation Graphics/Public Presentations     :    83 :      57.24%:
|                                               :       :            :
|Design Team Coordination                       :    29 :      20.00%:
|Construction Documents                         :    60 :      41.38%:
|Site Layout                                    :    75 :      51.72%:
|Program Development                          :    32 :    22.07%:
|Lighting design                                :    51 :      35.17%:
|                                               :       :            :
|Bidding(Negotiations)                          :    48 :      33.10%:
|Project Administration                         :    44 :      30.34%:
|Details, Materials, Specifications             :    88 :      60.69%:
|Road Alignment and Profiles                    :    34 :      23.45%:
|Life Cycle/Value Analysis                      :    13 :       8.97%:
|                                               :       :            :
|Grading and Drainage Details                   :    47 :      32.41%:
|Sewer Collection                               :    16 :      11.03%:
|Water Distribution                             :    19 :      13.10%:
|Construction Administration               .    :    19 :      13.10%:
|Maintenance Reviews and Scheduling             :    35 :      24.14%:
|Other, please explain                          :     2 :       1.38%:
|-----------------------------------------------:---------:------------:
```

```
VARIABLE= Southwest States          P E R C E I V E                                QUESTION # 10
                                    |S E R V I C E S                          :Raw Data :Percentages :
                                    |-----------------------------------------:---------:------------:
                                    |Design Development/Site Planning         :     78 :     53.79%:
                                    |Agency Consul./Review Approv./Zoning Assist. :  67 :     46.21%:
                                    |Project Financing/Project Budgeting      :     23 :     15.86%:
                                    |Site Analysis                            :     63 :     43.45%:
                                    |Erosion Control                          :     56 :     38.62%:
                                    |                                         :        :           :
                                    |Storm Drainage                           :     32 :     22.07%:
                                    |Environmental Studies                    :     38 :     26.21%:
                                    |Financial Analysis                       :      1 :      0.69%:
                                    |Project Development Scheduling           :     17 :     11.72%:
                                    |Marketing/Feasibility Studies            :     11 :      7.59%:
                                    |                                         :        :           :
                                    |Post Construction/Evaluation             :     28 :     19.31%:
                                    |Schematic/Preliminary Land Planning      :     71 :     48.97%:
                                    |Pre-Design                               :     47 :     32.41%:
                                    |Site Selection                           :     22 :     15.17%:
                                    |Planting Plans                           :     97 :     66.90%:
                                    |                                         :        :           :
                                    |Master Plans                             :     65 :     44.83%:
                                    |Preliminary Construction Cost Estimating :     35 :     24.14%:
                                    |Irrigation                               :     70 :     48.28%:
                                    |Feasibility Studies                      :     24 :     16.55%:
                                    |Presentation Graphics/Public Presentations :   76 :     52.41%:
                                    |                                         :        :           :
                                    |Design Team Coordination                 :     24 :     16.55%:
                                    |Construction Documents                   :     49 :     33.79%:
                                    |Site Layout                              :     55 :     37.93%:
                                    |Program Development                     :     28 :     19.31%:
                                    |Lighting design                          :     47 :     32.41%:
                                    |                                         :        :           :
                                    |Bidding(Negotiations)                    :     42 :     28.97%:
                                    |Project Administration                   :     31 :     21.38%:
                                    |Details, Materials, Specifications       :     66 :     45.52%:
                                    |Road Alignment and Profiles              :     25 :     17.24%:
                                    |Life Cycle/Value Analysis                :     17 :     11.72%:
                                    |                                         :        :           :
                                    |Grading and Drainage Details             :     45 :     31.03%:
                                    |Sewer Collection                         :     15 :     10.34%:
                                    |Water Distribution                       :     18 :     12.41%:
                                    |Construction Administration              :     17 :     11.72%:
                                    |Maintenance Reviews and Scheduling       :     34 :     23.45%:
                                    |Other, please explain                    :      3 :      2.07%:
                                    |-----------------------------------------:---------:------------:
```

```
VARIABLE= Southwest States              P R O V I D E                                 QUESTION # 11
                                        |S E R V I C E S                             :Raw Data :Percentages :
                                        |--------------------------------------------:---------:------------:
                                        |Design Development/Site Planning            :     86 :     59.31%:
                                        |Agency Consul./Review Approv./Zoning Assist. :    78 :     53.79%:
                                        |Project Financing/Project Budgeting         :     36 :     24.83%:
                                        |Site Analysis                               :     74 :     51.03%:
                                        |Erosion Control                             :     74 :     51.03%:
                                        |                                            :        :           :
                                        |Storm Drainage                              :     46 :     31.72%:
                                        |Environmental Studies                       :     50 :     34.48%:
                                        |Financial Analysis                          :      9 :      6.21%:
                                        |Project Development Scheduling              :     28 :     19.31%:
                                        |Marketing/Feasibility Studies               :     19 :     13.10%:
                                        |                                            :        :           :
                                        |Post Construction/Evaluation                :     49 :     33.79%:
                                        |Schematic/Preliminary Land Planning         :     76 :     52.41%:
                                        |Pre-Design                                  :     57 :     39.31%:
                                        |Site Selection                              :     43 :     29.66%:
                                        |Planting Plans                              :    103 :     71.03%:
                                        |                                            :        :           :
                                        |Master Plans                                :     79 :     54.48%:
                                        |Preliminary Construction Cost Estimating    :     59 :     40.69%:
                                        |Irrigation                                  :     88 :     60.69%:
                                        |Feasibility Studies                         :     34 :     23.45%:
                                        |Presentation Graphics/Public Presentations  :     81 :     55.86%:
                                        |                                            :        :           :
                                        |Design Team Coordination                    :     38 :     26.21%:
                                        |Construction Documents                      :     58 :     40.00%:
                                        |Site Layout                                 :     68 :     46.90%:
                                        |Program Development                        :     36 :     24.83%:
                                        |Lighting design                             :     63 :     43.45%:
                                        |                                            :        :           :
                                        |Bidding(Negotiations)                       :     58 :     40.00%:
                                        |Project Administration                      :     52 :     35.86%:
                                        |Details, Materials, Specifications          :     77 :     53.10%:
                                        |Road Alignment and Profiles                 :     35 :     24.14%:
                                        |Life Cycle/Value Analysis                   :     34 :     23.45%:
                                        |                                            :        :           :
                                        |Grading and Drainage Details                :     51 :     35.17%:
                                        |Sewer Collection                            :     21 :     14.48%:
                                        |Water Distribution                          :     23 :     15.86%:
                                        |Construction Administration                 :     30 :     20.69%:
                                        |Maintenance Reviews and Scheduling          :     46 :     31.72%:
                                        |Other, please explain                       :      2 :      1.38%:
                                        |--------------------------------------------:---------:------------:
```

```
VARIABLE= Southwest States          I  M  P  R  O  V  E                          QUESTION # 12
                                    |S  E  R  V  I  C  E  S                      :Raw Data :Percentages :
                                    |-----------------------------------------:---------:------------:
                                    |Design Development/Site Planning          :    17 :      11.72%:
                                    |Agency Consul./Review Approv./Zoning Assist. :  31 :      21.38%:
                                    |Project Financing/Project Budgeting       :    30 :      20.69%:
                                    |Site Analysis                             :    24 :      16.55%:
                                    |Erosion Control                           :    21 :      14.48%:
                                    |                                          :       :            :
                                    |Storm Drainage                            :    17 :      11.72%:
                                    |Environmental Studies                     :    16 :      11.03%:
                                    |Financial Analysis                        :    12 :       8.28%:
                                    |Project Development Scheduling            :    12 :       8.28%:
                                    |Marketing/Feasibility Studies             :    18 :      12.41%:
                                    |                                          :       :            :
                                    |Post Construction/Evaluation              :    19 :      13.10%:
                                    |Schematic/Preliminary Land Planning       :    15 :      10.34%:
                                    |Pre-Design                                :     9 :       6.21%:
                                    |Site Selection                            :    14 :       9.66%:
                                    |Planting Plans                            :    18 :      12.41%:
                                    |                                          :       :            :
                                    |Master Plans                              :    27 :      18.62%:
                                    |Preliminary Construction Cost Estimating  :    32 :      22.07%:
                                    |Irrigation                                :    21 :      14.48%:
                                    |Feasibility Studies                       :    20 :      13.79%:
                                    |Presentation Graphics/Public Presentations :   17 :      11.72%:
                                    |                                          :       :            :
                                    |Design Team Coordination                  :    19 :      13.10%:
                                    |Construction Documents                    :    12 :       8.28%:
                                    |Site Layout                               :    15 :      10.34%:
                                    |Program Development                      :    12 :      8.28%:
                                    |Lighting design                           :    25 :      17.24%:
                                    |                                          :       :            :
                                    |Bidding(Negotiations)                     :    15 :      10.34%:
                                    |Project Administration                    :    20 :      13.79%:
                                    |Details, Materials, Specifications        :    18 :      12.41%:
                                    |Road Alignment and Profiles               :    13 :       8.97%:
                                    |Life Cycle/Value Analysis                 :    27 :      18.62%:
                                    |                                          :       :            :
                                    |Grading and Drainage Details              :    17 :      11.72%:
                                    |Sewer Collection                          :    10 :       6.90%:
                                    |Water Distribution                        :     9 :       6.21%:
                                    |Construction Administration               :    12 :       8.28%:
                                    |Maintenance Reviews and Scheduling        :    18 :      12.41%:
                                    |Other, please explain                     :     2 :       1.38%:
                                    |-----------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

D A T A

VARIABLE= Pacific Northwest

Response using variable: 37

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	20	11.56%
Southeast States	23	13.29%
Great Lake States	17	9.83%
Midwest States	18	10.40%
Southwest States	20	11.56%
Pacific Northwest States	37	21.39%
Pacific Southwest States	28	16.18%
International Markets	10	5.78%
QUESTION 2--DEVELOPMENT		
Building	16	43.24%
Land	1	2.70%
Both	20	54.05%
QUESTION 3--SPECIFIC DEV.		
Commercial	23	20.35%
Industrial	22	19.47%
Residential	11	9.73%
Office	24	21.24%
Resort/Recreation	9	7.96%
Shopping Centers	17	15.04%
Other	7	6.19%
QUESTION 4--ORGANIZATIONS		
AIA	15	16.13%
APA	4	4.30%
ASCE	7	7.53%
ASLA	2	2.15%
ARROA	3	3.23%
ULI	18	19.35%
NAHB	4	4.30%
NAIOP	26	27.96%
Other	14	15.05%
QUESTION 5--YRS EXPERIENCE		
0 - 10	4	10.81%
11 -20	10	27.03%
21 - 30	13	35.14%
31 - 40	3	8.11%
41 - 50	1	2.70%
Over 51	5	13.51%

```
|-------------------------:---------:----------:
|QUESTION 6--ACRES        :         :          :
|0 - 30                   :       8 :    21.62%:
|30 - 100                 :       9 :    24.32%:
|101 - 200                :       2 :     5.41%:
|201 - 300                :       2 :     5.41%:
|301 - 500                :       3 :     8.11%:
|Over 500                 :      12 :    32.43%:
|-------------------------:---------:----------:
|QUESTION 7--$ VOLUME     :         :          :
|0 - $100,000             :       0 :     0.00%:
|$100,00 - $250,000       :       2 :     5.41%:
|$250,000 - $500,000      :       0 :     0.00%:
|$500,000 - 1 million     :       0 :     0.00%:
|1 million - 2 million    :       2 :     5.41%:
|2 million - 5 million    :       6 :    16.22%:
|Over 5 million dollars   :      25 :    67.57%:
|-------------------------:---------:----------:
|QUESTION 8--USE LA'S     :         :          :
|Yes                      :      34 :    91.89%:
|No                       :       3 :     8.11%:
|-------------------------:---------:----------:
|QUESTION 13--STAGES      :         :          :
|Early                    :      17 :    45.95%:
|Middle                   :       9 :    24.32%:
|Late                     :       5 :    13.51%:
|-------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:       :          :
|Yes                      :       5 :    13.51%:
|No                       :      32 :    86.49%:
|-------------------------:---------:----------:
|QUESTION 15--SUPERVISORY :         :          :
|Never                    :      12 :    32.43%:
|Almost Never             :      12 :    32.43%:
|Sometimes                :       7 :    18.92%:
|Almost Never             :       2 :     5.41%:
|Always                   :       2 :     5.41%:
|-------------------------:---------:----------:
|QUESTION 16--RATING      :         :          :
|Inferior                 :       0 :     0.00%:
|Fair                     :       7 :    18.92%:
|Good                     :      16 :    43.24%:
|Excellent                :       8 :    21.62%:
|No Basis For Judgement   :       3 :     8.11%:
|-------------------------:---------:----------:
|QUESTION 17--VALUE       :         :          :
|Of No Value              :       0 :     0.00%:
|Minimal Value            :       3 :     8.11%:
|Moderate Value           :      10 :    27.03%:
|Considerable Value       :      14 :    37.84%:
|Major Value              :       9 :    24.32%:
|-------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Pacific Northwest

Response using variable:       37


TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
 H  I  R  E  D                                              QUESTION # 9
|S  E  R  V  I  C  E  S                                :Raw Data :Percentages :
|------------------------------------------------------:---------:------------:
|Design Development/Site Planning                      :     27 :      72.97%:
|Agency Consul./Review Approv./Zoning Assist.          :     17 :      45.95%:
|Project Financing/Project Budgeting                   :      6 :      16.22%:
|Site Analysis                                         :     16 :      43.24%:
|Erosion Control                                       :     16 :      43.24%:
|                                                      :        :            :
|Storm Drainage                                        :      8 :      21.62%:
|Environmental Studies                                 :      7 :      18.92%:
|Financial Analysis                                    :      2 :       5.41%:
|Project Development Scheduling                        :      5 :      13.51%:
|Marketing/Feasibility Studies                         :      3 :       8.11%:
|                                                      :        :            :
|Post Construction/Evaluation                          :      6 :      16.22%:
|Schematic/Preliminary Land Planning                   :     22 :      59.46%:
|Pre-Design                                            :     13 :      35.14%:
|Site Selection                                        :      8 :      21.62%:
|Planting Plans                                        :     31 :      83.78%:
|                                                      :        :            :
|Master Plans                                          :     17 :      45.95%:
|Preliminary Construction Cost Estimating              :     13 :      35.14%:
|Irrigation                                            :     21 :      56.76%:
|Feasibility Studies                                   :      5 :      13.51%:
|Presentation Graphics/Public Presentations            :     19 :      51.35%:
|                                                      :        :            :
|Design Team Coordination                              :     10 :      27.03%:
|Construction Documents                                :     17 :      45.95%:
|Site Layout                                           :     13 :      35.14%:
|Program Development                                   :      9 :      24.32%:
|Lighting design                                       :     12 :      32.43%:
|                                                      :        :            :
|Bidding(Negotiations)                                 :     10 :      27.03%:
|Project Administration                                :      8 :      21.62%:
|Details, Materials, Specifications                    :     19 :      51.35%:
|Road Alignment and Profiles                           :      7 :      18.92%:
|Life Cycle/Value Analysis                             :      4 :      10.81%:
|                                                      :        :            :
|Grading and Drainage Details                          :      7 :      18.92%:
|Sewer Collection                                      :      4 :      10.81%:
|Water Distribution                                    :      5 :      13.51%:
|Construction Administration                           :      9 :      24.32%:
|Maintenance Reviews and Scheduling                    :      6 :      16.22%:
|Other, please explain                                 :      0 :       0.00%:
|------------------------------------------------------:---------:------------:
```

```
VARIABLE= Pacific Northwest           P  E  R  C  E  I  V  E                        QUESTION # 10
                                      |S  E  R  V  I  C  E  S                    :Raw Data :Percentages :
                                      |------------------------------------------:---------:------------:
                                      |Design Development/Site Planning          :      14 :     37.84%:
                                      |Agency Consul./Review Approv./Zoning Assist. :   12 :     32.43%:
                                      |Project Financing/Project Budgeting       :       3 :      8.11%:
                                      |Site Analysis                             :      13 :     35.14%:
                                      |Erosion Control                           :      14 :     37.84%:
                                      |                                          :         :           :
                                      |Storm Drainage                            :       8 :     21.62%:
                                      |Environmental Studies                     :      12 :     32.43%:
                                      |Financial Analysis                        :       1 :      2.70%:
                                      |Project Development Scheduling            :       1 :      2.70%:
                                      |Marketing/Feasibility Studies             :       4 :     10.81%:
                                      |                                          :         :           :
                                      |Post Construction/Evaluation              :       5 :     13.51%:
                                      |Schematic/Preliminary Land Planning       :      16 :     43.24%:
                                      |Pre-Design                                :      13 :     35.14%:
                                      |Site Selection                            :       4 :     10.81%:
                                      |Planting Plans                            :      23 :     62.16%:
                                      |                                          :         :           :
                                      |Master Plans                              :      13 :     35.14%:
                                      |Preliminary Construction Cost Estimating  :       7 :     18.92%:
                                      |Irrigation                                :      17 :     45.95%:
                                      |Feasibility Studies                       :       2 :      5.41%:
                                      |Presentation Graphics/Public Presentations :     17 :     45.95%:
                                      |                                          :         :           :
                                      |Design Team Coordination                  :       6 :     16.22%:
                                      |Construction Documents                    :      12 :     32.43%:
                                      |Site Layout                               :       9 :     24.32%:
                                      |Program Development                      :       5 :     13.51%:
                                      |Lighting design                           :       9 :     24.32%:
                                      |                                          :         :           :
                                      |Bidding(Negotiations)                     :       8 :     21.62%:
                                      |Project Administration                    :       6 :     16.22%:
                                      |Details, Materials, Specifications        :      15 :     40.54%:
                                      |Road Alignment and Profiles               :       6 :     16.22%:
                                      |Life Cycle/Value Analysis                 :       3 :      8.11%:
                                      |                                          :         :           :
                                      |Grading and Drainage Details              :      10 :     27.03%:
                                      |Sewer Collection                          :       4 :     10.81%:
                                      |Water Distribution                        :       4 :     10.81%:
                                      |Construction Administration               :       4 :     10.81%:
                                      |Maintenance Reviews and Scheduling        :       6 :     16.22%:
                                      |Other, please explain                     :       0 :      0.00%:
                                      |------------------------------------------:---------:------------:
```

```
VARIABLE= Pacific Northwest                      P  R  O  V  I  D  E                     QUESTION # 11
                                                |S  E  R  V  I  C  E  S              :Raw Data :Percentages :
                                                |--------------------------------------:---------:------------:
                                                |Design Development/Site Planning      :     17 :     45.95%:
                                                |Agency Consul./Review Approv./Zoning Assist. :     15 :     40.54%:
                                                |Project Financing/Project Budgeting   :      4 :     10.81%:
                                                |Site Analysis                         :     15 :     40.54%:
                                                |Erosion Control                       :     17 :     45.95%:
                                                |                                      :        :           :
                                                |Storm Drainage                        :      9 :     24.32%:
                                                |Environmental Studies                 :     11 :     29.73%:
                                                |Financial Analysis                    :      2 :      5.41%:
                                                |Project Development Scheduling        :      5 :     13.51%:
                                                |Marketing/Feasibility Studies         :      4 :     10.81%:
                                                |                                      :        :           :
                                                |Post Construction/Evaluation          :     13 :     35.14%:
                                                |Schematic/Preliminary Land Planning   :     15 :     40.54%:
                                                |Pre-Design                            :     15 :     40.54%:
                                                |Site Selection                        :     10 :     27.03%:
                                                |Planting Plans                        :     22 :     59.46%:
                                                |                                      :        :           :
                                                |Master Plans                          :     13 :     35.14%:
                                                |Preliminary Construction Cost Estimating :     13 :     35.14%:
                                                |Irrigation                            :     16 :     43.24%:
                                                |Feasibility Studies                   :      5 :     13.51%:
                                                |Presentation Graphics/Public Presentations :     19 :     51.35%:
                                                |                                      :        :           :
                                                |Design Team Coordination              :      7 :     18.92%:
                                                |Construction Documents                :     12 :     32.43%:
                                                |Site Layout                           :     12 :     32.43%:
                                                |Program Development                  :      7 :     18.92%:
                                                |Lighting design                       :     11 :     29.73%:
                                                |                                      :        :           :
                                                |Bidding(Negotiations)                 :     11 :     29.73%:
                                                |Project Administration                :      9 :     24.32%:
                                                |Details, Materials, Specifications    :     15 :     40.54%:
                                                |Road Alignment and Profiles           :      8 :     21.62%:
                                                |Life Cycle/Value Analysis             :      8 :     21.62%:
                                                |                                      :        :           :
                                                |Grading and Drainage Details          :      8 :     21.62%:
                                                |Sewer Collection                      :      3 :      8.11%:
                                                |Water Distribution                    :      4 :     10.81%:
                                                |Construction Administration           :      7 :     18.92%:
                                                |Maintenance Reviews and Scheduling    :      6 :     16.22%:
                                                |Other, please explain                 :      0 :      0.00%:
                                                |--------------------------------------:---------:------------:
```

```
VARIABLE= Pacific Northwest              I  M  P  R  O  V  E                                  QUESTION # 12
                                        |S  E  R  V  I  C  E  S                    :Raw Data :Percentages :
                                        |------------------------------------------:---------:------------:
                                        |Design Development/Site Planning          :       1 :       2.70%:
                                        |Agency Consul./Review Approv./Zoning Assist. :    7 :      18.92%:
                                        |Project Financing/Project Budgeting       :       7 :      18.92%:
                                        |Site Analysis                             :       3 :       8.11%:
                                        |Erosion Control                           :       4 :      10.81%:
                                        |                                          :         :            :
                                        |Storm Drainage                            :       3 :       8.11%:
                                        |Environmental Studies                     :       4 :      10.81%:
                                        |Financial Analysis                        :       2 :       5.41%:
                                        |Project Development Scheduling            :       2 :       5.41%:
                                        |Marketing/Feasibility Studies             :       2 :       5.41%:
                                        |                                          :         :            :
                                        |Post Construction/Evaluation              :       6 :      16.22%:
                                        |Schematic/Preliminary Land Planning       :       3 :       8.11%:
                                        |Pre-Design                                :       3 :       8.11%:
                                        |Site Selection                            :       4 :      10.81%:
                                        |Planting Plans                            :       4 :      10.81%:
                                        |                                          :         :            :
                                        |Master Plans                              :       2 :       5.41%:
                                        |Preliminary Construction Cost Estimating  :       7 :      18.92%:
                                        |Irrigation                                :       6 :      16.22%:
                                        |Feasibility Studies                       :       5 :      13.51%:
                                        |Presentation Graphics/Public Presentations :      5 :      13.51%:
                                        |                                          :         :            :
                                        |Design Team Coordination                  :       2 :       5.41%:
                                        |Construction Documents                    :       2 :       5.41%:
                                        |Site Layout                               :       2 :       5.41%:
                                        |Program Development                     :       3 :       8.11%:
                                        |Lighting design                           :       4 :      10.81%:
                                        |                                          :         :            :
                                        |Bidding(Negotiations)                     :       1 :       2.70%:
                                        |Project Administration                    :       4 :      10.81%:
                                        |Details, Materials, Specifications        :       3 :       8.11%:
                                        |Road Alignment and Profiles               :       1 :       2.70%:
                                        |Life Cycle/Value Analysis                 :       6 :      16.22%:
                                        |                                          :         :            :
                                        |Grading and Drainage Details              :       4 :      10.81%:
                                        |Sewer Collection                          :       1 :       2.70%:
                                        |Water Distribution                        :       1 :       2.70%:
                                        |Construction Administration               :       2 :       5.41%:
                                        |Maintenance Reviews and Scheduling        :       3 :       8.11%:
                                        |Other, please explain                     :       0 :       0.00%:
                                        |------------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= Pacific Southwest

Response using variable: 96

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	32	10.39%
Southeast States	43	13.96%
Great Lake States	30	9.74%
Midwest States	27	8.77%
Southwest States	39	12.66%
Pacific Northwest States	28	9.09%
Pacific Southwest States	96	31.17%
International Markets	13	4.22%
QUESTION 2--DEVELOPMENT		
Building	38	39.58%
Land	3	3.13%
Both	53	55.21%
QUESTION 3--SPECIFIC DEV.		
Commercial	66	21.09%
Industrial	69	22.04%
Residential	35	11.18%
Office	66	21.09%
Resort/Recreation	22	7.03%
Shopping Centers	42	13.42%
Other	13	4.15%
QUESTION 4--ORGANIZATIONS		
AIA	30	13.64%
APA	5	2.27%
ASCE	13	5.91%
ASLA	5	2.27%
ARRDA	4	1.82%
ULI	53	24.09%
NAHB	18	8.18%
NAIOP	73	33.18%
Other	19	8.64%
QUESTION 5--YRS EXPERIENCE		
0 - 10	11	11.46%
11 -20	27	28.13%
21 - 30	34	35.42%
31 - 40	11	11.46%
41 - 50	3	3.13%
Over 51	9	9.38%

QUESTION 6--ACRES		
0 - 30	22	22.92%
30 - 100	24	25.00%
101 - 200	12	12.50%
201 - 300	1	1.04%
301 - 500	9	9.38%
Over 500	27	28.13%
QUESTION 7--$ VOLUME		
0 - $100,000	1	1.04%
$100,00 - $250,000	2	2.08%
$250,000 - $500,000	1	1.04%
$500,000 - 1 million	4	4.17%
1 million - 2 million	4	4.17%
2 million - 5 million	3	3.13%
Over 5 million dollars	77	80.21%
QUESTION 8--USE LA'S		
Yes	90	93.75%
No	6	6.25%
QUESTION 13--STAGES		
Early	55	57.29%
Middle	17	17.71%
Late	10	10.42%
QUESTION 14--EMPLOY IN FIRM		
Yes	11	11.46%
No	84	87.50%
QUESTION 15--SUPERVISORY		
Never	33	34.38%
Almost Never	26	27.08%
Sometimes	22	22.92%
Almost Never	5	5.21%
Always	8	8.33%
QUESTION 16--RATING		
Inferior	3	3.13%
Fair	18	18.75%
Good	45	46.88%
Excellent	20	20.83%
No Basis For Judgement	4	4.17%
QUESTION 17--VALUE		
Of No Value	1	1.04%
Minimal Value	8	8.33%
Moderate Value	21	21.88%
Considerable Value	42	43.75%
Major Value	21	21.88%

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

```
VARIABLE= Pacific Southwest

Response using variable:      96


TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
H  I  R  E  D                                                QUESTION # 9
|S  E  R  V  I  C  E  S                         :Raw Data :Percentages :
|-----------------------------------------------:---------:------------:
|Design Development/Site Planning               :     71 :     73.96%:
|Agency Consul./Review Approv./Zoning Assist.   :     43 :     44.79%:
|Project Financing/Project Budgeting            :     23 :     23.96%:
|Site Analysis                                  :     42 :     43.75%:
|Erosion Control                                :     40 :     41.67%:
|                                               :        :           :
|Storm Drainage                                 :     21 :     21.88%:
|Environmental Studies                          :     23 :     23.96%:
|Financial Analysis                             :      6 :      6.25%:
|Project Development Scheduling                 :     12 :     12.50%:
|Marketing/Feasibility Studies                  :      8 :      8.33%:
|                                               :        :           :
|Post Construction/Evaluation                   :     22 :     22.92%:
|Schematic/Preliminary Land Planning            :     49 :     51.04%:
|Pre-Design                                     :     42 :     43.75%:
|Site Selection                                 :     12 :     12.50%:
|Planting Plans                                 :     83 :     86.46%:
|                                               :        :           :
|Master Plans                                   :     49 :     51.04%:
|Preliminary Construction Cost Estimating       :     40 :     41.67%:
|Irrigation                                     :     67 :     69.79%:
|Feasibility Studies                            :     15 :     15.63%:
|Presentation Graphics/Public Presentations     :     54 :     56.25%:
|                                               :        :           :
|Design Team Coordination                       :     24 :     25.00%:
|Construction Documents                         :     45 :     46.88%:
|Site Layout                                    :     42 :     43.75%:
|Program Development                          :     22 :     22.92%:
|Lighting design                                :     41 :     42.71%:
|                                               :        :           :
|Bidding(Negotiations)                          :     23 :     23.96%:
|Project Administration                         :     25 :     26.04%:
|Details, Materials, Specifications             :     54 :     56.25%:
|Road Alignment and Profiles                    :     18 :     18.75%:
|Life Cycle/Value Analysis                      :     10 :     10.42%:
|                                               :        :           :
|Grading and Drainage Details                   :     21 :     21.88%:
|Sewer Collection                               :      9 :      9.38%:
|Water Distribution                             :     15 :     15.63%:
|Construction Administration                    :     16 :     16.67%:
|Maintenance Reviews and Scheduling             :     29 :     30.21%:
|Other, please explain                          :      3 :      3.13%:
|-----------------------------------------------:---------:------------:
```

```
VARIABLE= Pacific Southwest          P E R C E I V E                               QUESTION # 10
                                    |S E R V I C E S                          :Raw Data :Percentages :
                                    |-----------------------------------------:---------:------------:
                                    |Design Development/Site Planning         :     45 :      46.88%:
                                    |Agency Consul./Review Approv./Zoning Assist. : 29 :      30.21%:
                                    |Project Financing/Project Budgeting      :     12 :      12.50%:
                                    |Site Analysis                            :     31 :      32.29%:
                                    |Erosion Control                          :     36 :      37.50%:
                                    |                                         :        :            :
                                    |Storm Drainage                           :     17 :      17.71%:
                                    |Environmental Studies                    :     22 :      22.92%:
                                    |Financial Analysis                       :      2 :       2.08%:
                                    |Project Development Scheduling           :      7 :       7.29%:
                                    |Marketing/Feasibility Studies            :      9 :       9.38%:
                                    |                                         :        :            :
                                    |Post Construction/Evaluation             :     17 :      17.71%:
                                    |Schematic/Preliminary Land Planning      :     35 :      36.46%:
                                    |Pre-Design                               :     35 :      36.46%:
                                    |Site Selection                           :     12 :      12.50%:
                                    |Planting Plans                           :     57 :      59.38%:
                                    |                                         :        :            :
                                    |Master Plans                             :     37 :      38.54%:
                                    |Preliminary Construction Cost Estimating :     27 :      28.13%:
                                    |Irrigation                               :     48 :      50.00%:
                                    |Feasibility Studies                      :     12 :      12.50%:
                                    |Presentation Graphics/Public Presentations :   44 :      45.83%:
                                    |                                         :        :            :
                                    |Design Team Coordination                 :     16 :      16.67%:
                                    |Construction Documents                   :     37 :      38.54%:
                                    |Site Layout                              :     32 :      33.33%:
                                    |Program Development                      :     19 :      19.79%:
                                    |Lighting design                          :     34 :      35.42%:
                                    |                                         :        :            :
                                    |Bidding(Negotiations)                    :     21 :      21.88%:
                                    |Project Administration                   :     19 :      19.79%:
                                    |Details, Materials, Specifications       :     39 :      40.63%:
                                    |Road Alignment and Profiles              :     11 :      11.46%:
                                    |Life Cycle/Value Analysis                :     11 :      11.46%:
                                    |                                         :        :            :
                                    |Grading and Drainage Details             :     24 :      25.00%:
                                    |Sewer Collection                         :      6 :       6.25%:
                                    |Water Distribution                       :     11 :      11.46%:
                                    |Construction Administration              :     11 :      11.46%:
                                    |Maintenance Reviews and Scheduling       :     22 :      22.92%:
                                    |Other, please explain                    :      1 :       1.04%:
                                    |-----------------------------------------:---------:------------:
```

```
VARIABLE= Pacific Southwest                P R O V I D E                                QUESTION # 11
                                          |S E R V I C E S                          :Raw Data :Percentages :
                                          |-----------------------------------------:---------:------------:
                                          |Design Development/Site Planning         :      55 :     57.29%:
                                          |Agency Consul./Review Approv./Zoning Assist. :  46 :     47.92%:
                                          |Project Financing/Project Budgeting      :      24 :     25.00%:
                                          |Site Analysis                            :      47 :     48.96%:
                                          |Erosion Control                          :      54 :     56.25%:
                                          |                                         :         :           :
                                          |Storm Drainage                           :      27 :     28.13%:
                                          |Environmental Studies                    :      31 :     32.29%:
                                          |Financial Analysis                       :      10 :     10.42%:
                                          |Project Development Scheduling           :      20 :     20.83%:
                                          |Marketing/Feasibility Studies            :      15 :     15.63%:
                                          |                                         :         :           :
                                          |Post Construction/Evaluation             :      38 :     39.58%:
                                          |Schematic/Preliminary Land Planning      :      47 :     48.96%:
                                          |Pre-Design                               :      49 :     51.04%:
                                          |Site Selection                           :      25 :     26.04%:
                                          |Planting Plans                           :      65 :     67.71%:
                                          |                                         :         :           :
                                          |Master Plans                             :      47 :     48.96%:
                                          |Preliminary Construction Cost Estimating :      44 :     45.83%:
                                          |Irrigation                               :      57 :     59.38%:
                                          |Feasibility Studies                      :      24 :     25.00%:
                                          |Presentation Graphics/Public Presentations :    56 :     58.33%:
                                          |                                         :         :           :
                                          |Design Team Coordination                 :      26 :     27.08%:
                                          |Construction Documents                   :      47 :     48.96%:
                                          |Site Layout                              :      42 :     43.75%:
                                          |Program Development                    :      29 :     30.21%:
                                          |Lighting design                          :      48 :     50.00%:
                                          |                                         :         :           :
                                          |Bidding(Negotiations)                    :      33 :     34.38%:
                                          |Project Administration                   :      39 :     40.63%:
                                          |Details, Materials, Specifications       :      52 :     54.17%:
                                          |Road Alignment and Profiles              :      21 :     21.88%:
                                          |Life Cycle/Value Analysis                :      25 :     26.04%:
                                          |                                         :         :           :
                                          |Grading and Drainage Details             :      30 :     31.25%:
                                          |Sewer Collection                         :      12 :     12.50%:
                                          |Water Distribution                       :      16 :     16.67%:
                                          |Construction Administration              :      23 :     23.96%:
                                          |Maintenance Reviews and Scheduling       :      29 :     30.21%:
                                          |Other, please explain                    :       2 :      2.08%:
                                          |-----------------------------------------:---------:------------:
```

```
VARIABLE= Pacific Southwest              I  M  P  R  O  V  E                          QUESTION # 12
                                        |S  E  R  V  I  C  E  S                  :Raw Data :Percentages :
                                        |-----------------------------------------:---------:------------:
                                        |Design Development/Site Planning         :      11 :     11.46%:
                                        |Agency Consul./Review Approv./Zoning Assist. :  18 :     18.75%:
                                        |Project Financing/Project Budgeting      :      16 :     16.67%:
                                        |Site Analysis                            :      13 :     13.54%:
                                        |Erosion Control                          :      15 :     15.63%:
                                        |                                         :         :           :
                                        |Storm Drainage                           :      14 :     14.58%:
                                        |Environmental Studies                    :      13 :     13.54%:
                                        |Financial Analysis                       :       9 :      9.38%:
                                        |Project Development Scheduling           :       8 :      8.33%:
                                        |Marketing/Feasibility Studies            :       8 :      8.33%:
                                        |                                         :         :           :
                                        |Post Construction/Evaluation             :      12 :     12.50%:
                                        |Schematic/Preliminary Land Planning      :      16 :     16.67%:
                                        |Pre-Design                               :      12 :     12.50%:
                                        |Site Selection                           :       7 :      7.29%:
                                        |Planting Plans                           :      13 :     13.54%:
                                        |                                         :         :           :
                                        |Master Plans                             :      13 :     13.54%:
                                        |Preliminary Construction Cost Estimating :      24 :     25.00%:
                                        |Irrigation                               :      14 :     14.58%:
                                        |Feasibility Studies                      :      12 :     12.50%:
                                        |Presentation Graphics/Public Presentations :    13 :     13.54%:
                                        |                                         :         :           :
                                        |Design Team Coordination                 :      10 :     10.42%:
                                        |Construction Documents                   :      10 :     10.42%:
                                        |Site Layout                              :       7 :      7.29%:
                                        |Program Development                    :       6 :      6.25%:
                                        |Lighting design                          :      18 :     18.75%:
                                        |                                         :         :           :
                                        |Bidding(Negotiations)                    :      13 :     13.54%:
                                        |Project Administration                   :      13 :     13.54%:
                                        |Details, Materials, Specifications       :      13 :     13.54%:
                                        |Road Alignment and Profiles              :       4 :      4.17%:
                                        |Life Cycle/Value Analysis                :      15 :     15.63%:
                                        |                                         :         :           :
                                        |Grading and Drainage Details             :      15 :     15.63%:
                                        |Sewer Collection                         :       7 :      7.29%:
                                        |Water Distribution                       :       7 :      7.29%:
                                        |Construction Administration              :       9 :      9.38%:
                                        |Maintenance Reviews and Scheduling       :      11 :     11.46%:
                                        |Other, please explain                    :       1 :      1.04%:
                                        |-----------------------------------------:---------:------------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES                        D A T A


VARIABLE= International Markets

Response using variable:        14

TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
|===========================:=========:==========:
|QUESTIONS                  :Raw Data :Percentage:
|===========================:=========:==========:
|QUESTION 1 --REGIONS       :         :          :
|Northeast States           :      13 :    13.54%:
|Southeast States           :      14 :    14.58%:
|Great Lake States          :      11 :    11.46%:
|Midwest States             :      10 :    10.42%:
|Southwest States           :      11 :    11.46%:
|Pacific Northwest States   :      10 :    10.42%:
|Pacific Southwest States   :      13 :    13.54%:
|International Markets      :      14 :    14.58%:
|                           :         :          :
|---------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT    :         :          :
|Building                   :       8 :    57.14%:
|Land                       :       0 :     0.00%:
|Both                       :       6 :    42.86%:
|---------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV.  :         :          :
|Commercial                 :      10 :    18.87%:
|Industrial                 :       8 :    15.09%:
|Residential                :       7 :    13.21%:
|Office                     :      10 :    18.87%:
|Resort/Recreation          :       5 :     9.43%:
|Shopping Centers           :       8 :    15.09%:
|Other                      :       5 :     9.43%:
|---------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS  :         :          :
|AIA                        :       9 :    23.08%:
|APA                        :       2 :     5.13%:
|ASCE                       :       3 :     7.69%:
|ASLA                       :       2 :     5.13%:
|ARROA                      :       2 :     5.13%:
|ULI                        :       8 :    20.51%:
|NAHB                       :       4 :    10.26%:
|NAIOP                      :       6 :    15.38%:
|Other                      :       3 :     7.69%:
|---------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :         :          :
|0 - 10                     :       0 :     0.00%:
|11 -20                     :       6 :    42.86%:
|21 - 30                    :       4 :    28.57%:
|31 - 40                    :       1 :     7.14%:
|41 - 50                    :       0 :     0.00%:
|Over 51                    :       3 :    21.43%:
|---------------------------:---------:----------:
```

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :       2 :    14.29%:
|30 - 100                  :       1 :     7.14%:
|101 - 200                 :       1 :     7.14%:
|201 - 300                 :       1 :     7.14%:
|301 - 500                 :       0 :     0.00%:
|Over 500                  :       9 :    64.29%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :       0 :     0.00%:
|$100,00 - $250,000        :       0 :     0.00%:
|$250,000 - $500,000       :       0 :     0.00%:
|$500,000 - 1 million      :       0 :     0.00%:
|1 million - 2 million     :       0 :     0.00%:
|2 million - 5 million     :       0 :     0.00%:
|Over 5 million dollars    :      13 :    92.86%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :      14 :   100.00%:
|No                        :       0 :     0.00%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :       6 :    42.86%:
|Middle                    :       3 :    21.43%:
|Late                      :       3 :    21.43%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :       3 :    21.43%:
|No                        :      10 :    71.43%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :       3 :    21.43%:
|Almost Never              :       4 :    28.57%:
|Sometimes                 :       5 :    35.71%:
|Almost Never              :       1 :     7.14%:
|Always                    :       1 :     7.14%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :       0 :     0.00%:
|Fair                      :       1 :     7.14%:
|Good                      :       6 :    42.86%:
|Excellent                 :       4 :    28.57%:
|No Basis For Judgement    :       1 :     7.14%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :       0 :     0.00%:
|Minimal Value             :       1 :     7.14%:
|Moderate Value            :       3 :    21.43%:
|Considerable Value        :       3 :    21.43%:
|Major Value               :       6 :    42.86%:
|--------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= International Markets

Response using variable:       14


TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 | Q10=    222 |
Q2=   309 | Q11=    233 |
Q3=   317 | Q12=    187 |
Q4=   317 | Q13=    270 |
Q5=   314 | Q14=    315 |
Q6=   312 | Q15=    305 |
Q7=   309 | Q16=    301 |
Q8=   313 | Q17=    306 |
Q9=   293 |             |
==========|=============|
```

```
 H I R E D                                              QUESTION # 9
|S E R V I C E S                                   :Raw Data :Percentages :
|-------------------------------------------------:---------:------------:
|Design Development/Site Planning                  :    11 :     78.57%:
|Agency Consul./Review Approv./Zoning Assist.      :    11 :     78.57%:
|Project Financing/Project Budgeting               :     5 :     35.71%:
|Site Analysis                                     :     6 :     42.86%:
|Erosion Control                                   :     8 :     57.14%:
|                                                  :       :           :
|Storm Drainage                                    :     5 :     35.71%:
|Environmental Studies                             :     5 :     35.71%:
|Financial Analysis                                :     1 :      7.14%:
|Project Development Scheduling                    :     4 :     28.57%:
|Marketing/Feasibility Studies                     :     1 :      7.14%:
|                                                  :       :           :
|Post Construction/Evaluation                      :     3 :     21.43%:
|Schematic/Preliminary Land Planning               :     8 :     57.14%:
|Pre-Design                                        :     8 :     57.14%:
|Site Selection                                    :     4 :     28.57%:
|Planting Plans                                    :    14 :    100.00%:
|                                                  :       :           :
|Master Plans                                      :     7 :     50.00%:
|Preliminary Construction Cost Estimating          :     4 :     28.57%:
|Irrigation                                        :     9 :     64.29%:
|Feasibility Studies                               :     1 :      7.14%:
|Presentation Graphics/Public Presentations        :    10 :     71.43%:
|                                                  :       :           :
|Design Team Coordination                          :     6 :     42.86%:
|Construction Documents                            :     7 :     50.00%:
|Site Layout                                       :     6 :     42.86%:
|Program Development                               :     6 :     42.86%:
|Lighting design                                   :     7 :     50.00%:
|                                                  :       :           :
|Bidding(Negotiations)                             :     6 :     42.86%:
|Project Administration                            :     6 :     42.86%:
|Details, Materials, Specifications                :    11 :     78.57%:
|Road Alignment and Profiles                       :     3 :     21.43%:
|Life Cycle/Value Analysis                         :     3 :     21.43%:
|                                                  :       :           :
|Grading and Drainage Details                      :     6 :     42.86%:
|Sewer Collection                                  :     4 :     28.57%:
|Water Distribution                                :     4 :     28.57%:
|Construction Administration                       :     2 :     14.29%:
|Maintenance Reviews and Scheduling                :     3 :     21.43%:
|Other, please explain                             :     1 :      7.14%:
|-------------------------------------------------:---------:------------:
```

```
VARIABLE= International Markets          P E R C E I V E                           QUESTION # 10
                                         |S E R V I C E S                      :Raw Data :Percentages :
                                         |-------------------------------------------:---------:-----------:
                                         |Design Development/Site Planning          :       6 :     42.86%:
                                         |Agency Consul./Review Approv./Zoning Assist. :    7 :     50.00%:
                                         |Project Financing/Project Budgeting       :       2 :     14.29%:
                                         |Site Analysis                             :       4 :     28.57%:
                                         |Erosion Control                           :       7 :     50.00%:
                                         |                                          :         :           :
                                         |Storm Drainage                            :       3 :     21.43%:
                                         |Environmental Studies                     :       5 :     35.71%:
                                         |Financial Analysis                        :       0 :      0.00%:
                                         |Project Development Scheduling            :       2 :     14.29%:
                                         |Marketing/Feasibility Studies             :       1 :      7.14%:
                                         |                                          :         :           :
                                         |Post Construction/Evaluation              :       1 :      7.14%:
                                         |Schematic/Preliminary Land Planning       :       7 :     50.00%:
                                         |Pre-Design                                :       5 :     35.71%:
                                         |Site Selection                            :       2 :     14.29%:
                                         |Planting Plans                            :      10 :     71.43%:
                                         |                                          :         :           :
                                         |Master Plans                              :       6 :     42.86%:
                                         |Preliminary Construction Cost Estimating  :       2 :     14.29%:
                                         |Irrigation                                :       8 :     57.14%:
                                         |Feasibility Studies                       :       2 :     14.29%:
                                         |Presentation Graphics/Public Presentations :      6 :     42.86%:
                                         |                                          :         :           :
                                         |Design Team Coordination                  :       4 :     28.57%:
                                         |Construction Documents                    :       6 :     42.86%:
                                         |Site Layout                               :       4 :     28.57%:
                                         |Program Development                       :       3 :     21.43%:
                                         |Lighting design                           :       5 :     35.71%:
                                         |                                          :         :           :
                                         |Bidding(Negotiations)                     :       4 :     28.57%:
                                         |Project Administration                    :       4 :     28.57%:
                                         |Details, Materials, Specifications        :       7 :     50.00%:
                                         |Road Alignment and Profiles               :       2 :     14.29%:
                                         |Life Cycle/Value Analysis                 :       0 :      0.00%:
                                         |                                          :         :           :
                                         |Grading and Drainage Details              :       4 :     28.57%:
                                         |Sewer Collection                          :       2 :     14.29%:
                                         |Water Distribution                        :       1 :      7.14%:
                                         |Construction Administration               :       1 :      7.14%:
                                         |Maintenance Reviews and Scheduling        :       5 :     35.71%:
                                         |Other, please explain                     :       1 :      7.14%:
                                         |-------------------------------------------:---------:-----------:
```

```
VARIABLE= International Markets          P R O V I D E                          QUESTION # 11
                                         |S E R V I C E S                     :Raw Data :Percentages :
                                         |---------------------------------------:---------:------------:
                                         |Design Development/Site Planning       :       7 :     50.00%:
                                         |Agency Consul./Review Approv./Zoning Assist. : 8 :     57.14%:
                                         |Project Financing/Project Budgeting    :       4 :     28.57%:
                                         |Site Analysis                          :       5 :     35.71%:
                                         |Erosion Control                        :       7 :     50.00%:
                                         |                                       :         :           :
                                         |Stone Drainage                         :       3 :     21.43%:
                                         |Environmental Studies                  :       5 :     35.71%:
                                         |Financial Analysis                     :       1 :      7.14%:
                                         |Project Development Scheduling         :       3 :     21.43%:
                                         |Marketing/Feasibility Studies          :       1 :      7.14%:
                                         |                                       :         :           :
                                         |Post Construction/Evaluation           :       3 :     21.43%:
                                         |Schematic/Preliminary Land Planning    :       6 :     42.86%:
                                         |Pre-Design                             :       6 :     42.86%:
                                         |Site Selection                         :       4 :     28.57%:
                                         |Planting Plans                         :      10 :     71.43%:
                                         |                                       :         :           :
                                         |Master Plans                           :       7 :     50.00%:
                                         |Preliminary Construction Cost Estimating :     5 :     35.71%:
                                         |Irrigation                             :       9 :     64.29%:
                                         |Feasibility Studies                    :       2 :     14.29%:
                                         |Presentation Graphics/Public Presentations :   6 :     42.86%:
                                         |                                       :         :           :
                                         |Design Team Coordination               :       4 :     28.57%:
                                         |Construction Documents                 :       7 :     50.00%:
                                         |Site Layout                            :       5 :     35.71%:
                                         |Program Development                    :       4 :     28.57%:
                                         |Lighting design                        :       7 :     50.00%:
                                         |                                       :         :           :
                                         |Bidding(Negotiations)                  :       4 :     28.57%:
                                         |Project Administration                 :       6 :     42.86%:
                                         |Details, Materials, Specifications     :       7 :     50.00%:
                                         |Road Alignment and Profiles            :       2 :     14.29%:
                                         |Life Cycle/Value Analysis              :       1 :      7.14%:
                                         |                                       :         :           :
                                         |Grading and Drainage Details           :       5 :     35.71%:
                                         |Sewer Collection                       :       1 :      7.14%:
                                         |Water Distribution                     :       1 :      7.14%:
                                         |Construction Administration            :       2 :     14.29%:
                                         |Maintenance Reviews and Scheduling     :       4 :     28.57%:
                                         |Other, please explain                  :       0 :      0.00%:
                                         |---------------------------------------:---------:------------:
```

VARIABLE= International Markets

QUESTION # 12

IMPROVE SERVICES	Raw Data	Percentages
Design Development/Site Planning	0	0.00%
Agency Consul./Review Approv./Zoning Assist.	2	14.29%
Project Financing/Project Budgeting	3	21.43%
Site Analysis	0	0.00%
Erosion Control	2	14.29%
Storm Drainage	2	14.29%
Environmental Studies	1	7.14%
Financial Analysis	1	7.14%
Project Development Scheduling	1	7.14%
Marketing/Feasibility Studies	1	7.14%
Post Construction/Evaluation	2	14.29%
Schematic/Preliminary Land Planning	0	0.00%
Pre-Design	0	0.00%
Site Selection	1	7.14%
Planting Plans	1	7.14%
Master Plans	0	0.00%
Preliminary Construction Cost Estimating	3	21.43%
Irrigation	2	14.29%
Feasibility Studies	0	0.00%
Presentation Graphics/Public Presentations	1	7.14%
Design Team Coordination	1	7.14%
Construction Documents	2	14.29%
Site Layout	0	0.00%
Program Development	0	0.00%
Lighting design	3	21.43%
Bidding(Negotiations)	0	0.00%
Project Administration	1	7.14%
Details, Materials, Specifications	0	0.00%
Road Alignment and Profiles	0	0.00%
Life Cycle/Value Analysis	0	0.00%
Grading and Drainage Details	3	21.43%
Sewer Collection	1	7.14%
Water Distribution	0	0.00%
Construction Administration	0	0.00%
Maintenance Reviews and Scheduling	1	7.14%
Other, please explain	0	0.00%

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

DATA

VARIABLE= Hired Landscape Architects

Response using variable: 297

TOTAL # SENT 1283
TOTAL # RETURNED 318
RESPONSE RATE 24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northesat States	107	19.31%
Southesat States	137	24.73%
Great Lake States	54	9.75%
Midwest States	51	9.21%
Southwest States	67	12.09%
Pacific Northwest States	34	6.14%
Pacific Southwest States	90	16.25%
International Markets	14	2.53%
QUESTION 2--DEVELOPMENT		
Building	97	32.66%
Land	16	5.39%
Both	181	60.94%
QUESTION 3--SPECIFIC DEV.		
Commercial	221	22.26%
Industrial	202	20.34%
Residential	119	11.98%
Office	231	23.26%
Resort/Recreation	51	5.14%
Shopping Centers	135	13.60%
Other	34	3.42%
QUESTION 4--ORGANIZATIONS		
AIA	68	9.91%
APA	20	2.92%
ASCE	28	4.08%
ASLA	23	3.35%
ARRDA	15	2.19%
ULI	157	22.89%
NAHB	52	7.58%
NAIOP	251	36.59%
Other	72	10.50%
QUESTION 5--YRS EXPERIENCE		
0 - 10	46	15.49%
11 -20	101	34.01%
21 - 30	92	30.98%
31 - 40	20	6.73%
41 - 50	8	2.69%
Over 51	27	9.09%

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :      75 :    25.25%:
|30 - 100                  :      82 :    27.61%:
|101 - 200                 :      49 :    16.50%:
|201 - 300                 :      14 :     4.71%:
|301 - 500                 :      23 :     7.74%:
|Over 500                  :      49 :    16.50%:
|--------------------------:---------:----------:
|QUESTION 7--S VOLUME      :         :          :
|0 - $100,000              :       3 :     1.01%:
|$100,00 - $250,000        :       3 :     1.01%:
|$250,000 - $500,000       :       4 :     1.35%:
|$500,000 - 1 million      :      11 :     3.70%:
|1 million - 2 million     :      23 :     7.74%:
|2 million - 5 million     :      40 :    13.47%:
|Over 5 million dollars    :     205 :    69.02%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :     297 :   100.00%:
|No                        :       0 :     0.00%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :     174 :    58.59%:
|Middle                    :      51 :    17.17%:
|Late                      :      29 :     9.76%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :      45 :    15.15%:
|No                        :     249 :    83.84%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :      85 :    28.62%:
|Almost Never              :      50 :    16.84%:
|Sometimes                 :      84 :    28.28%:
|Almost Always             :      38 :    12.79%:
|Always                    :      28 :     9.43%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :       4 :     1.35%:
|Fair                      :      66 :    22.22%:
|Good                      :     149 :    50.17%:
|Excellent                 :      53 :    17.85%:
|No Basis For Judgement    :       9 :     3.03%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :       1 :     0.34%:
|Minimal Value             :      15 :     5.05%:
|Moderate Value            :      59 :    19.87%:
|Considerable Value        :     148 :    49.83%:
|Major Value               :      62 :    20.88%:
|--------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Hired Landscape Architects

Response using variable:       297


TOTAL # SENT        1283
TOTAL # RETURNED     318
RESPONSE RATE      24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=    314 |  Q10=    222 |
Q2=    309 |  Q11=    233 |
Q3=    317 |  Q12=    187 |
Q4=    317 |  Q13=    270 |
Q5=    314 |  Q14=    315 |
Q6=    312 |  Q15=    305 |
Q7=    309 |  Q16=    301 |
Q8=    313 |  Q17=    306 |
Q9=    293 |              |
==========|==============|
```

```
 H  I  R  E  D                                              QUESTION # 9
|S  E  R  V  I  C  E  S                           :Raw Data :Percentages :
|-------------------------------------------------:---------:------------:
|Design Development/Site Planning                 :   240 :       80.81%:
|Agency Consul./Review Approv./Zoning Assist.     :   149 :       50.17%:
|Project Financing/Project Budgeting              :    65 :       21.89%:
|Site Analysis                                    :   164 :       55.22%:
|Erosion Control                                  :   116 :       39.06%:
|                                                 :       :             :
|Storm Drainage                                   :    71 :       23.91%:
|Environmental Studies                            :    75 :       25.25%:
|Financial Analysis                               :    16 :        5.39%:
|Project Development Scheduling                   :    37 :       12.46%:
|Marketing/Feasibility Studies                    :    25 :        8.42%:
|                                                 :       :             :
|Post Construction/Evaluation                     :    58 :       19.53%:
|Schematic/Preliminary Land Planning              :   171 :       57.58%:
|Pre-Design                                       :   117 :       39.39%:
|Site Selection                                   :    34 :       11.45%:
|Planting Plans                                   :   266 :       89.56%:
|                                                 :       :             :
|Master Plans                                     :   163 :       54.88%:
|Preliminary Construction Cost Estimating         :   109 :       36.70%:
|Irrigation                                       :   193 :       64.98%:
|Feasibility Studies                              :    52 :       17.51%:
|Presentation Graphics/Public Presentations       :   170 :       57.24%:
|                                                 :       :             :
|Design Team Coordination                         :    71 :       23.91%:
|Construction Documents                           :   125 :       42.09%:
|Site Layout                                      :   147 :       49.49%:
|Program Development                            :    57 :     19.19%:
|Lighting design                                  :   116 :       39.06%:
|                                                 :       :             :
|Bidding(Negotiations)                            :    85 :       28.62%:
|Project Administration                           :    75 :       25.25%:
|Details, Materials, Specifications               :   170 :       57.24%:
|Road Alignment and Profiles                      :    70 :       23.57%:
|Life Cycle/Value Analysis                        :    28 :        9.43%:
|                                                 :       :             :
|Grading and Drainage Details                     :    94 :       31.65%:
|Sewer Collection                                 :    28 :        9.43%:
|Water Distribution                               :    37 :       12.46%:
|Construction Administration                      :    41 :       13.80%:
|Maintenance Reviews and Scheduling               :    77 :       25.93%:
|Other, please explain                            :     7 :        2.36%:
|-------------------------------------------------:---------:------------:
```

```
VARIABLE= Hired Landscape Architecta        P  E  R  C  E  I  V  E                          QUESTION # 10
                                           |S  E  R  V  I  C  E  S                  :Raw Data :Percentages :
                                           |-----------------------------------------:---------:------------:
                                           |Design Development/Site Planning         :   162 :     54.55%:
                                           |Agency Consul./Review Approv./Zoning Assiat. :   110 :     37.04%:
                                           |Project Financing/Project Budgeting      :    41 :     13.80%:
                                           |Site Analysis                            :   124 :     41.75%:
                                           |Erosion Control                          :   103 :     34.68%:
                                           |                                         :       :           :
                                           |Storm Drainage                           :    63 :     21.21%:
                                           |Environmental Studies                    :    73 :     24.58%:
                                           |Financial Analysis                       :    12 :      4.04%:
                                           |Project Development Scheduling           :    31 :     10.44%:
                                           |Marketing/Feasibility Studies            :    22 :      7.41%:
                                           |                                         :       :           :
                                           |Post Construction/Evaluation             :    60 :     20.20%:
                                           |Schematic/Preliminary Land Planning      :   130 :     43.77%:
                                           |Pre-Design                               :    98 :     33.00%:
                                           |Site Selection                           :    46 :     15.49%:
                                           |Planting Plans                           :   183 :     61.62%:
                                           |                                         :       :           :
                                           |Master Plans                             :   126 :     42.42%:
                                           |Preliminary Construction Cost Estimating :    81 :     27.27%:
                                           |Irrigation                               :   144 :     48.48%:
                                           |Feasibility Studies                      :    48 :     16.16%:
                                           |Presentation Graphics/Public Presentations :   139 :     46.80%:
                                           |                                         :       :           :
                                           |Design Team Coordination                 :    50 :     16.84%:
                                           |Construction Documents                   :    99 :     33.33%:
                                           |Site Layout                              :   115 :     38.72%:
                                           |Program Development                      :    52 :     17.51%:
                                           |Lighting design                          :    94 :     31.65%:
                                           |                                         :       :           :
                                           |Bidding(Negotiations)                    :    76 :     25.59%:
                                           |Project Administration                   :    62 :     20.88%:
                                           |Details, Materials, Specifications       :   117 :     39.39%:
                                           |Road Alignment and Profiles              :    49 :     16.50%:
                                           |Life Cycle/Value Analysis                :    35 :     11.78%:
                                           |                                         :       :           :
                                           |Grading and Drainage Details             :    83 :     27.95%:
                                           |Sewer Collection                         :    21 :      7.07%:
                                           |Water Distribution                       :    32 :     10.77%:
                                           |Construction Administration              :    40 :     13.47%:
                                           |Maintenance Reviews and Scheduling       :    71 :     23.91%:
                                           |Other, please explain                    :     8 :      2.69%:
                                           |-----------------------------------------:---------:------------:
```

```
VARIABLE= Hired Landscape Architects      P R O V I D E                               QUESTION # 11
                                         |S E R V I C E S                          :Raw Data :Percentages :
                                         |-----------------------------------------:---------:------------:
                                         |Design Development/Site Planning         :     178 :     59.93%:
                                         |Agency Consul./Review Approv./Zoning Assist. : 145 :     48.82%:
                                         |Project Financing/Project Budgeting      :      79 :     26.60%:
                                         |Site Analysis                            :     157 :     52.86%:
                                         |Erosion Control                          :     140 :     47.14%:
                                         |                                         :         :           :
                                         |Storm Drainage                           :      89 :     29.97%:
                                         |Environmental Studies                    :     103 :     34.68%:
                                         |Financial Analysis                       :      30 :     10.10%:
                                         |Project Development Scheduling           :      53 :     17.85%:
                                         |Marketing/Feasibility Studies            :      38 :     12.79%:
                                         |                                         :         :           :
                                         |Post Construction/Evaluation             :      96 :     32.32%:
                                         |Schematic/Preliminary Land Planning      :     151 :     50.84%:
                                         |Pre-Design                               :     124 :     41.75%:
                                         |Site Selection                           :      84 :     28.28%:
                                         |Planting Plans                           :     195 :     65.66%:
                                         |                                         :         :           :
                                         |Master Plans                             :     148 :     49.83%:
                                         |Preliminary Construction Cost Estimating :     122 :     41.08%:
                                         |Irrigation                               :     171 :     57.58%:
                                         |Feasibility Studies                      :      74 :     24.92%:
                                         |Presentation Graphics/Public Presentations :   157 :     52.86%:
                                         |                                         :         :           :
                                         |Design Team Coordination                 :      78 :     26.26%:
                                         |Construction Documents                   :     120 :     40.40%:
                                         |Site Layout                              :     136 :     45.79%:
                                         |Program Development                    :      80 :     26.94%:
                                         |Lighting design                          :     127 :     42.76%:
                                         |                                         :         :           :
                                         |Bidding(Negotiations)                    :     104 :     35.02%:
                                         |Project Administration                   :     101 :     34.01%:
                                         |Details, Materials, Specifications       :     142 :     47.81%:
                                         |Road Alignment and Profiles              :      72 :     24.24%:
                                         |Life Cycle/Value Analysis                :      73 :     24.58%:
                                         |                                         :         :           :
                                         |Grading and Drainage Details             :     102 :     34.34%:
                                         |Sewer Collection                         :      38 :     12.79%:
                                         |Water Distribution                       :      51 :     17.17%:
                                         |Construction Administration              :      65 :     21.89%:
                                         |Maintenance Reviews and Scheduling       :      95 :     31.99%:
                                         |Other, please explain                    :       7 :      2.36%:
                                         |-----------------------------------------:---------:------------:
```

```
VARIABLE= Hired Landscape Architects      I M P R O V E                                   QUESTION # 12
                                         |S E R V I C E S                            :Raw Data :Percentages :
                                         |-------------------------------------------:---------:------------:
                                         |Design Development/Site Planning           :     49 :      16.50%:
                                         |Agency Consul./Review Approv./Zoning Assist. :   63 :      21.21%:
                                         |Project Financing/Project Budgeting        :     65 :      21.89%:
                                         |Site Analysis                              :     52 :      17.51%:
                                         |Erosion Control                            :     39 :      13.13%:
                                         |                                           :        :            :
                                         |Storm Drainage                             :     36 :      12.12%:
                                         |Environmental Studies                      :     37 :      12.46%:
                                         |Financial Analysis                         :     29 :       9.76%:
                                         |Project Development Scheduling             :     22 :       7.41%:
                                         |Marketing/Feasibility Studies              :     29 :       9.76%:
                                         |                                           :        :            :
                                         |Post Construction/Evaluation               :     32 :      10.77%:
                                         |Schematic/Preliminary Land Planning        :     44 :      14.81%:
                                         |Pre-Design                                 :     31 :      10.44%:
                                         |Site Selection                             :     24 :       8.08%:
                                         |Planting Plans                             :     42 :      14.14%:
                                         |                                           :        :            :
                                         |Master Plans                               :     54 :      18.18%:
                                         |Preliminary Construction Cost Estimating   :     65 :      21.89%:
                                         |Irrigation                                 :     41 :      13.80%:
                                         |Feasibility Studies                        :     46 :      15.49%:
                                         |Presentation Graphics/Public Presentations :     37 :      12.46%:
                                         |                                           :        :            :
                                         |Design Team Coordination                   :     39 :      13.13%:
                                         |Construction Documents                     :     33 :      11.11%:
                                         |Site Layout                                :     36 :      12.12%:
                                         |Program Development                      :     33 :      11.11%:
                                         |Lighting design                            :     55 :      18.52%:
                                         |                                           :        :            :
                                         |Bidding(Negotiations)                      :     39 :      13.13%:
                                         |Project Administration                     :     40 :      13.47%:
                                         |Details, Materials, Specifications         :     41 :      13.80%:
                                         |Road Alignment and Profiles                :     23 :       7.74%:
                                         |Life Cycle/Value Analysis                  :     49 :      16.50%:
                                         |                                           :        :            :
                                         |Grading and Drainage Details               :     41 :      13.80%:
                                         |Sewer Collection                           :     16 :       5.39%:
                                         |Water Distribution                         :     20 :       6.73%:
                                         |Construction Administration                :     32 :      10.77%:
                                         |Maintenance Reviews and Scheduling         :     34 :      11.45%:
                                         |Other, please explain                      :      7 :       2.36%:
                                         |-------------------------------------------:---------:------------:
```

SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

D A T A

VARIABLE= Not Hired Landscape Architects

Response using variable: 16

TOTAL # SENT	1283
TOTAL # RETURNED	318
RESPONSE RATE	24.79%

TOTAL # OF RESPONSES PER QUESTION

Q1=	314	Q10=	222
Q2=	309	Q11=	233
Q3=	317	Q12=	187
Q4=	317	Q13=	270
Q5=	314	Q14=	315
Q6=	312	Q15=	305
Q7=	309	Q16=	301
Q8=	313	Q17=	306
Q9=	293		

QUESTIONS	Raw Data	Percentage
QUESTION 1 --REGIONS		
Northeast States	6	21.43%
Southeast States	6	21.43%
Great Lake States	5	17.86%
Midwest States	3	10.71%
Southwest States	2	7.14%
Pacific Northwest States	2	7.14%
Pacific Southwest States	4	14.29%
International Markets	0	0.00%
QUESTION 2--DEVELOPMENT		
Building	7	43.75%
Land	2	12.50%
Both	7	43.75%
QUESTION 3--SPECIFIC DEV.		
Commercial	7	21.21%
Industrial	8	24.24%
Residential	5	15.15%
Office	7	21.21%
Resort/Recreation	2	6.06%
Shopping Centers	3	9.09%
Other	1	3.03%
QUESTION 4--ORGANIZATIONS		
AIA	2	5.71%
APA	0	0.00%
ASCE	2	5.71%
ASLA	0	0.00%
ARRQA	2	5.71%
ULI	8	22.86%
NAHB	1	2.86%
NAIOP	13	37.14%
Other	7	20.00%
QUESTION 5--YRS EXPERIENCE		
0 - 10	4	25.00%
11 -20	5	31.25%
21 - 30	5	31.25%
31 - 40	1	6.25%
41 - 50	1	6.25%
Over 51	0	0.00%

```
|---------------------------:---------:----------:
|QUESTION 6--ACRES          :         :          :
|0 - 30                     :       7 :    43.75%:
|30 - 100                   :       3 :    18.75%:
|101 - 200                  :       3 :    18.75%:
|201 - 300                  :       0 :     0.00%:
|301 - 500                  :       0 :     0.00%:
|Over 500                   :       3 :    18.75%:
|---------------------------:---------:----------:
|QUESTION 7--$ VOLUME       :         :          :
|0 - $100,000               :       2 :    12.50%:
|$100,00 - $250,000         :       1 :     6.25%:
|$250,000 - $500,000        :       1 :     6.25%:
|$500,000 - 1 million       :       3 :    18.75%:
|1 million - 2 million      :       1 :     6.25%:
|2 million - 5 million      :       3 :    18.75%:
|Over 5 million dollars     :       5 :    31.25%:
|---------------------------:---------:----------:
|QUESTION 8--USE LA'S       :         :          :
|Yes                        :       0 :     0.00%:
|No                         :      16 :   100.00%:
|---------------------------:---------:----------:
|QUESTION 13--STAGES        :         :          :
|Early                      :       5 :    31.25%:
|Middle                     :       1 :     6.25%:
|Late                       :       5 :    31.25%:
|---------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:         :          :
|Yes                        :       0 :     0.00%:
|No                         :      16 :   100.00%:
|---------------------------:---------:----------:
|QUESTION 15--SUPERVISORY   :         :          :
|Never                      :      11 :    68.75%:
|Almost Never               :       4 :    25.00%:
|Sometimes                  :       0 :     0.00%:
|Almost Always              :       1 :     6.25%:
|Always                     :       0 :     0.00%:
|---------------------------:---------:----------:
|QUESTION 16--RATING        :         :          :
|Inferior                   :       0 :     0.00%:
|Fair                       :       2 :    12.50%:
|Good                       :       5 :    31.25%:
|Excellent                  :       1 :     6.25%:
|No Basis For Judgement     :       7 :    43.75%:
|---------------------------:---------:----------:
|QUESTION 17--VALUE         :         :          :
|Of No Value                :       0 :     0.00%:
|Minimal Value              :       6 :    37.50%:
|Moderate Value             :       4 :     0.00%:
|Considerable Value         :       5 :    31.25%:
|Major Value                :       1 :     6.25%:
|---------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Not Hired Landscape Architects

Response using variable:      16


TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
 H  I  R  E  D                                        QUESTION # 9
|S  E  R  V  I  C  E  S                          :Raw Data :Percentages :
|-----------------------------------------------:---------:------------:
|Design Development/Site Planning               :      1 :       6.25%:
|Agency Consul./Review Approv./Zoning Assist.   :      1 :       6.25%:
|Project Financing/Project Budgeting            :      0 :       0.00%:
|Site Analysis                                  :      1 :       6.25%:
|Erosion Control                                :      1 :       6.25%:
|                                               :        :            :
|Storm Drainage                                 :      1 :       6.25%:
|Environmental Studies                          :      1 :       6.25%:
|Financial Analysis                             :      0 :       0.00%:
|Project Development Scheduling                 :      1 :       6.25%:
|Marketing/Feasibility Studies                  :      0 :       0.00%:
|                                               :        :            :
|Post Construction/Evaluation                   :      1 :       6.25%:
|Schematic/Preliminary Land Planning            :      1 :       6.25%:
|Pre-Design                                     :      1 :       6.25%:
|Site Selection                                 :      0 :       0.00%:
|Planting Plans                                 :      1 :       6.25%:
|                                               :        :            :
|Master Plans                                   :      0 :       0.00%:
|Preliminary Construction Cost Estimating       :      0 :       0.00%:
|Irrigation                                     :      0 :       0.00%:
|Feasibility Studies                            :      1 :       6.25%:
|Presentation Graphics/Public Presentations     :      1 :       6.25%:
|                                               :        :            :
|Design Team Coordination                       :      0 :       0.00%:
|Construction Documents                         :      0 :       0.00%:
|Site Layout                                    :      1 :       6.25%:
|Program Development                           :      0 :       0.00%:
|Lighting design                                :      1 :       6.25%:
|                                               :        :            :
|Bidding(Negotiations)                          :      0 :       0.00%:
|Project Administration                         :      0 :       0.00%:
|Details, Materials, Specifications             :      1 :       6.25%:
|Road Alignment and Profiles                    :      1 :       6.25%:
|Life Cycle/Value Analysis                      :      0 :       0.00%:
|                                               :        :            :
|Grading and Drainage Details                   :      1 :       6.25%:
|Sewer Collection                               :      1 :       6.25%:
|Water Distribution                             :      1 :       6.25%:
|Construction Administration                    :      0 :       0.00%:
|Maintenance Reviews and Scheduling             :      0 :       0.00%:
|Other, please explain                          :      0 :       0.00%:
|-----------------------------------------------:---------:------------:
```

```
VARIABLE= Not Hired Landscape Architects        P E R C E i V E                              QUESTION # 10
                                                |S E R V I C E S                            :Raw Data :Percentages :
                                                |-------------------------------------------:---------:------------:
                                                |Design Development/Site Planning           :      4 :     25.00%:
                                                |Agency Consul./Review Approv./Zoning Assist. :    5 :     31.25%:
                                                |Project Financing/Project Budgeting        :      2 :     12.50%:
                                                |Site Analysis                              :      6 :     37.50%:
                                                |Erosion Control                            :      8 :     50.00%:
                                                |                                           :        :           :
                                                |Storm Drainage                             :      2 :     12.50%:
                                                |Environmental Studies                      :      4 :     25.00%:
                                                |Financial Analysis                         :      1 :      6.25%:
                                                |Project Development Scheduling             :      2 :     12.50%:
                                                |Marketing/Feasibility Studies              :      0 :      0.00%:
                                                |                                           :        :           :
                                                |Post Construction/Evaluation               :      2 :     12.50%:
                                                |Schematic/Preliminary Land Planning        :      7 :     43.75%:
                                                |Pre-Design                                 :      9 :     56.25%:
                                                |Site Selection                             :      3 :     18.75%:
                                                |Planting Plans                             :     14 :     87.50%:
                                                |                                           :        :           :
                                                |Master Plans                               :      2 :     12.50%:
                                                |Preliminary Construction Cost Estimating   :      2 :     12.50%:
                                                |Irrigation                                 :      9 :     56.25%:
                                                |Feasibility Studies                        :      3 :     18.75%:
                                                |Presentation Graphics/Public Presentations :      7 :     43.75%:
                                                |                                           :        :           :
                                                |Design Team Coordination                   :      1 :      6.25%:
                                                |Construction Documents                     :      2 :     12.50%:
                                                |Site Layout                                :      3 :     18.75%:
                                                |Program Development                        :      4 :     25.00%:
                                                |Lighting design                            :      5 :     31.25%:
                                                |                                           :        :           :
                                                |Bidding(Negotiations)                      :      3 :     18.75%:
                                                |Project Administration                     :      2 :     12.50%:
                                                |Details, Materials, Specifications         :      7 :     43.75%:
                                                |Road Alignment and Profiles                :      2 :     12.50%:
                                                |Life Cycle/Value Analysis                  :      1 :      6.25%:
                                                |                                           :        :           :
                                                |Grading and Drainage Details               :      6 :     37.50%:
                                                |Sewer Collection                           :      2 :     12.50%:
                                                |Water Distribution                         :      2 :     12.50%:
                                                |Construction Administration                :      2 :     12.50%:
                                                |Maintenance Reviews and Scheduling         :      1 :      6.25%:
                                                |Other, please explain                      :      1 :      6.25%:
                                                |-------------------------------------------:---------:------------:
```

```
VARIABLE= Not Hired Landscape Architects     P R O V I D E                          QUESTION # 11
                                             |S E R V I C E S                       :Raw Data :Percentages :
                                             |--------------------------------------:---------:------------:
                                             |Design Development/Site Planning      :      4 :     25.00%:
                                             |Agency Consul./Review Approv./Zoning Assist. :  6 : 37.50%:
                                             |Project Financing/Project Budgeting   :      3 :     18.75%:
                                             |Site Analysis                         :      6 :     37.50%:
                                             |Erosion Control                       :      8 :     50.00%:
                                             |                                      :        :           :
                                             |Storm Drainage                        :      3 :     18.75%:
                                             |Environmental Studies                 :      5 :     31.25%:
                                             |Financial Analysis                    :      1 :      6.25%:
                                             |Project Development Scheduling        :      2 :     12.50%:
                                             |Marketing/Feasibility Studies         :      1 :      6.25%:
                                             |                                      :        :           :
                                             |Post Construction/Evaluation          :      3 :     18.75%:
                                             |Schematic/Preliminary Land Planning   :      5 :     31.25%:
                                             |Pre-Design                            :      6 :     37.50%:
                                             |Site Selection                        :      3 :     18.75%:
                                             |Planting Plans                        :     10 :     62.50%:
                                             |                                      :        :           :
                                             |Master Plans                          :      3 :     18.75%:
                                             |Preliminary Construction Cost Estimating :   3 :     18.75%:
                                             |Irrigation                            :      8 :     50.00%:
                                             |Feasibility Studies                   :      5 :     31.25%:
                                             |Presentation Graphics/Public Presentations : 7 :     43.75%:
                                             |                                      :        :           :
                                             |Design Team Coordination              :      2 :     12.50%:
                                             |Construction Documents                :      3 :     18.75%:
                                             |Site Layout                           :      4 :     25.00%:
                                             |Program Development                 :      5 :     31.25%:
                                             |Lighting design                       :      4 :     25.00%:
                                             |                                      :        :           :
                                             |Bidding(Negotiations)                 :      3 :     18.75%:
                                             |Project Administration                :      3 :     18.75%:
                                             |Details, Materials, Specifications    :      7 :     43.75%:
                                             |Road Alignment and Profiles           :      2 :     12.50%:
                                             |Life Cycle/Value Analysis             :      2 :     12.50%:
                                             |                                      :        :           :
                                             |Grading and Drainage Details          :      5 :     31.25%:
                                             |Sewer Collection                      :      2 :     12.50%:
                                             |Water Distribution                    :      2 :     12.50%:
                                             |Construction Administration           :      2 :     12.50%:
                                             |Maintenance Reviews and Scheduling    :      2 :     12.50%:
                                             |Other, please explain                 :      0 :      0.00%:
                                             |--------------------------------------:---------:------------:
```

```
VARIABLE= Not Hired Landscape Architects        I  M  P  R  O  V  E                        QUESTION # 12
                                               |S  E  R  V  I  C  E  S              :Raw Data :Percentages :
                                               |----------------------------------------:---------:------------:
                                               |Design Development/Site Planning        :       1 :      6.25%:
                                               |Agency Consul./Review Approv./Zoning Assist. :  1 :      6.25%:
                                               |Project Financing/Project Budgeting     :       0 :      0.00%:
                                               |Site Analysis                           :       2 :     12.50%:
                                               |Erosion Control                         :       1 :      6.25%:
                                               |                                        :         :           :
                                               |Storm Drainage                          :       1 :      6.25%:
                                               |Environmental Studies                   :       1 :      6.25%:
                                               |Financial Analysis                      :       0 :      0.00%:
                                               |Project Development Scheduling          :       0 :      0.00%:
                                               |Marketing/Feasibility Studies           :       0 :      0.00%:
                                               |                                        :         :           :
                                               |Post Construction/Evaluation            :       1 :      6.25%:
                                               |Schematic/Preliminary Land Planning     :       0 :      0.00%:
                                               |Pre-Design                              :       0 :      0.00%:
                                               |Site Selection                          :       0 :      0.00%:
                                               |Planting Plans                          :       2 :     12.50%:
                                               |                                        :         :           :
                                               |Master Plans                            :       0 :      0.00%:
                                               |Preliminary Construction Cost Estimating :      0 :      0.00%:
                                               |Irrigation                              :       1 :      6.25%:
                                               |Feasibility Studies                     :       0 :      0.00%:
                                               |Presentation Graphics/Public Presentations :    2 :     12.50%:
                                               |                                        :         :           :
                                               |Design Team Coordination                :       1 :      6.25%:
                                               |Construction Documents                  :       0 :      0.00%:
                                               |Site Layout                             :       1 :      6.25%:
                                               |Program Development                   :       0 :      0.00%:
                                               |Lighting design                         :       0 :      0.00%:
                                               |                                        :         :           :
                                               |Bidding(Negotiations)                   :       0 :      0.00%:
                                               |Project Administration                  :       0 :      0.00%:
                                               |Details, Materials, Specifications      :       1 :      6.25%:
                                               |Road Alignment and Profiles             :       0 :      0.00%:
                                               |Life Cycle/Value Analysis               :       1 :      6.25%:
                                               |                                        :         :           :
                                               |Grading and Drainage Details            :       0 :      0.00%:
                                               |Sewer Collection                        :       0 :      0.00%:
                                               |Water Distribution                      :       0 :      0.00%:
                                               |Construction Administration             :       0 :      0.00%:
                                               |Maintenance Reviews and Scheduling      :       0 :      0.00%:
                                               |Other, please explain                   :       0 :      0.00%:
                                               |----------------------------------------:---------:------------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES                    D A T A


VARIABLE= Employ in Firm                   |==========================:=========:==========:
                                           |QUESTIONS                 :Raw Data :Percentage:
Response using variable:      47           |==========================:=========:==========:
                                           |QUESTION 1 --REGIONS      :         :          :
TOTAL # SENT        1283                   |Northeast States          :      19 :    20.88%:
TOTAL # RETURNED     318                   |Southeast States          :      27 :    29.67%:
RESPONSE RATE      24.79%                  |Great Lake States         :       8 :     8.79%:
                                           |Midwest States            :       6 :     6.59%:
TOTAL # OF RESPONSES PER QUESTION          |Southwest States          :      12 :    13.19%:
Q1=   314 |  Q10=    222 |                 |Pacific Northwest States  :       5 :     5.49%:
Q2=   309 |  Q11=    233 |                 |Pacific Southwest States  :      11 :    12.09%:
Q3=   317 |  Q12=    187 |                 |International Markets     :       3 :     3.30%:
Q4=   317 |  Q13=    270 |                 |                          :         :          :
Q5=   314 |  Q14=    315 |                 |--------------------------:---------:----------:
Q6=   312 |  Q15=    305 |                 |QUESTION 2--DEVELOPMENT   :         :          :
Q7=   309 |  Q16=    301 |                 |Building                  :       7 :    14.89%:
Q8=   313 |  Q17=    306 |                 |Land                      :       5 :    10.64%:
Q9=   293 |              |                 |Both                      :      34 :    72.34%:
==========|==============|                 |--------------------------:---------:----------:
                                           |QUESTION 3--SPECIFIC DEV. :         :          :
                                           |Commercial                :      32 :    20.13%:
                                           |Industrial                :      25 :    15.72%:
                                           |Residential               :      26 :    16.35%:
                                           |Office                    :      30 :    18.87%:
                                           |Resort/Recreation         :      14 :     8.81%:
                                           |Shopping Centers          :      21 :    13.21%:
                                           |Other                     :      11 :     6.92%:
                                           |--------------------------:---------:----------:
                                           |QUESTION 4--ORGANIZATIONS :         :          :
                                           |AIA                       :      15 :    10.27%:
                                           |APA                       :      11 :     7.53%:
                                           |ASCE                      :       6 :     4.11%:
                                           |ASLA                      :      20 :    13.70%:
                                           |ARRDA                     :       5 :     3.42%:
                                           |ULI                       :      31 :    21.23%:
                                           |NAHB                      :      13 :     8.90%:
                                           |NAIOP                     :      35 :    23.97%:
                                           |Other                     :      10 :     6.85%:
                                           |--------------------------:---------:----------:
                                           |QUESTION 5--YRS EXPERIENCE :        :          :
                                           |0 - 10                    :       5 :    10.64%:
                                           |11 -20                    :      20 :    42.55%:
                                           |21 - 30                   :      11 :    23.40%:
                                           |31 - 40                   :       1 :     2.13%:
                                           |41 - 50                   :       1 :     2.13%:
                                           |Over 51                   :       9 :    19.15%:
                                           |--------------------------:---------:----------:
```

```
|--------------------------:---------:----------:
|QUESTION 6--ACRES         :         :          :
|0 - 30                    :     11 :    23.40%:
|30 - 100                  :      7 :    14.89%:
|101 - 200                 :      8 :    17.02%:
|201 - 300                 :      2 :     4.26%:
|301 - 500                 :      5 :    10.64%:
|Over 500                  :     14 :    29.79%:
|--------------------------:---------:----------:
|QUESTION 7--$ VOLUME      :         :          :
|0 - $100,000              :      1 :     2.13%:
|$100,00 - $250,000        :      0 :     0.00%:
|$250,000 - $500,000       :      0 :     0.00%:
|$500,000 - 1 million      :      1 :     2.13%:
|1 million - 2 million     :      3 :     6.38%:
|2 million - 5 million     :      6 :    12.77%:
|Over 5 million dollars    :     33 :    70.21%:
|--------------------------:---------:----------:
|QUESTION 8--USE LA'S      :         :          :
|Yes                       :     45 :    95.74%:
|No                        :      2 :     4.26%:
|--------------------------:---------:----------:
|QUESTION 13--STAGES       :         :          :
|Early                     :     28 :    59.57%:
|Middle                    :      4 :     8.51%:
|Late                      :      2 :     4.26%:
|--------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:        :          :
|Yes                       :     47 :   100.00%:
|No                        :      0 :     0.00%:
|--------------------------:---------:----------:
|QUESTION 15--SUPERVISORY  :         :          :
|Never                     :      4 :     8.51%:
|Almost Never              :      6 :    12.77%:
|Sometimes                 :     20 :    42.55%:
|Almost Always             :      5 :    10.64%:
|Always                    :     10 :    21.28%:
|--------------------------:---------:----------:
|QUESTION 16--RATING       :         :          :
|Inferior                  :      1 :     2.13%:
|Fair                      :      4 :     8.51%:
|Good                      :     20 :    42.55%:
|Excellent                 :     19 :    40.43%:
|No Basis For Judgement    :      1 :     2.13%:
|--------------------------:---------:----------:
|QUESTION 17--VALUE        :         :          :
|Of No Value               :      0 :     0.00%:
|Minimal Value             :      1 :     2.13%:
|Moderate Value            :      4 :     8.51%:
|Considerable Value        :     22 :    46.81%:
|Major Value               :     18 :    38.30%:
|--------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Employ in Firm

Response using variable:       47


TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=    314 |  Q10=    222 |
Q2=    309 |  Q11=    233 |
Q3=    317 |  Q12=    187 |
Q4=    317 |  Q13=    270 |
Q5=    314 |  Q14=    315 |
Q6=    312 |  Q15=    305 |
Q7=    309 |  Q16=    301 |
Q8=    313 |  Q17=    306 |
Q9=    293 |              |
==========|==============|
```

```
 H  I  R  E  D                                            QUESTION # 9
|S  E  R  V  I  C  E  S                          :Raw Data :Percentages :
|-------------------------------------------------:---------:------------:
|Design Development/Site Planning                 :    39 :      82.98%:
|Agency Consul./Review Approv./Zoning Assist.     :    33 :      70.21%:
|Project Financing/Project Budgeting              :    12 :      25.53%:
|Site Analysis                                    :    35 :      74.47%:
|Erosion Control                                  :    30 :      63.83%:
|                                                 :       :            :
|Storm Drainage                                   :    20 :      42.55%:
|Environmental Studies                            :    22 :      46.81%:
|Financial Analysis                               :     6 :      12.77%:
|Project Development Scheduling                   :    11 :      23.40%:
|Marketing/Feasibility Studies                    :     8 :      17.02%:
|                                                 :       :            :
|Post Construction/Evaluation                     :    10 :      21.28%:
|Schematic/Preliminary Land Planning              :    35 :      74.47%:
|Pre-Design                                       :    26 :      55.32%:
|Site Selection                                   :    13 :      27.66%:
|Planting Plans                                   :    41 :      87.23%:
|                                                 :       :            :
|Master Plans                                     :    39 :      82.98%:
|Preliminary Construction Cost Estimating         :    25 :      53.19%:
|Irrigation                                       :    33 :      70.21%:
|Feasibility Studies                              :    19 :      40.43%:
|Presentation Graphics/Public Presentations       :    36 :      76.60%:
|                                                 :       :            :
|Design Team Coordination                         :    17 :      36.17%:
|Construction Documents                           :    22 :      46.81%:
|Site Layout                                      :    31 :      65.96%:
|Program Development                              :    18 :      38.30%:
|Lighting design                                  :    24 :      51.06%:
|                                                 :       :            :
|Bidding(Negotiations)                            :    11 :      23.40%:
|Project Administration                           :    14 :      29.79%:
|Details, Materials, Specifications               :    33 :      70.21%:
|Road Alignment and Profiles                      :    18 :      38.30%:
|Life Cycle/Value Analysis                        :     7 :      14.89%:
|                                                 :       :            :
|Grading and Drainage Details                     :    26 :      55.32%:
|Sewer Collection                                 :     9 :      19.15%:
|Water Distribution                               :    10 :      21.28%:
|Construction Administration                      :    10 :      21.28%:
|Maintenance Reviews and Scheduling               :    11 :      23.40%:
|Other, please explain                            :     0 :       0.00%:
|-------------------------------------------------:---------:------------:
```

```
VARIABLE= Employ in Firm          P E R C E I V E                              QUESTION # 10
                                 |S E R V I C E S                          :Raw Data :Percentages :
                                 |-----------------------------------------:---------:------------:
                                 |Design Development/Site Planning          :     29 :     61.70%:
                                 |Agency Consul./Review Approv./Zoning Assist. :  21 :     44.68%:
                                 |Project Financing/Project Budgeting       :      6 :     12.77%:
                                 |Site Analysis                             :     28 :     59.57%:
                                 |Erosion Control                           :     23 :     48.94%:
                                 |                                          :        :           :
                                 |Storm Drainage                            :     14 :     29.79%:
                                 |Environmental Studies                     :     18 :     38.30%:
                                 |Financial Analysis                        :      4 :      8.51%:
                                 |Project Development Scheduling            :      6 :     12.77%:
                                 |Marketing/Feasibility Studies             :      3 :      6.38%:
                                 |                                          :        :           :
                                 |Post Construction/Evaluation              :     12 :     25.53%:
                                 |Schematic/Preliminary Land Planning       :     25 :     53.19%:
                                 |Pre-Design                                :     18 :     38.30%:
                                 |Site Selection                            :     15 :     31.91%:
                                 |Planting Plans                            :     33 :     70.21%:
                                 |                                          :        :           :
                                 |Master Plans                              :     26 :     55.32%:
                                 |Preliminary Construction Cost Estimating  :     18 :     38.30%:
                                 |Irrigation                                :     22 :     46.81%:
                                 |Feasibility Studies                       :     14 :     29.79%:
                                 |Presentation Graphics/Public Presentations :    28 :     59.57%:
                                 |                                          :        :           :
                                 |Design Team Coordination                  :     13 :     27.66%:
                                 |Construction Documents                    :     18 :     38.30%:
                                 |Site Layout                               :     23 :     48.94%:
                                 |Program Development                       :     14 :     29.79%:
                                 |Lighting design                           :     17 :     36.17%:
                                 |                                          :        :           :
                                 |Bidding(Negotiations)                     :     15 :     31.91%:
                                 |Project Administration                    :     10 :     21.28%:
                                 |Details, Materials, Specifications        :     24 :     51.06%:
                                 |Road Alignment and Profiles               :     12 :     25.53%:
                                 |Life Cycle/Value Analysis                 :      8 :     17.02%:
                                 |                                          :        :           :
                                 |Grading and Drainage Details              :     22 :     46.81%:
                                 |Sewer Collection                          :      7 :     14.89%:
                                 |Water Distribution                        :      8 :     17.02%:
                                 |Construction Administration               :     10 :     21.28%:
                                 |Maintenance Reviews and Scheduling        :     10 :     21.28%:
                                 |Other, please explain                     :      0 :      0.00%:
                                 |-----------------------------------------:---------:------------:
```

```
VARIABLE= Employ in Firm                  P  R  O  V  I  D  E                            QUESTION # 11
                                         |S  E  R  V  I  C  E  S                    :Raw Data :Percentages :
                                         |------------------------------------------:---------:------------:
                                         |Design Development/Site Planning          :    29 :       61.70%:
                                         |Agency Consul./Review Approv./Zoning Assist. :    24 :       51.06%:
                                         |Project Financing/Project Budgeting       :    12 :       25.53%:
                                         |Site Analysis                             :    29 :       61.70%:
                                         |Erosion Control                           :    27 :       57.45%:
                                         |                                          :       :             :
                                         |Storm Drainage                            :    16 :       34.04%:
                                         |Environmental Studies                     :    21 :       44.68%:
                                         |Financial Analysis                        :     5 :       10.64%:
                                         |Project Development Scheduling            :    12 :       25.53%:
                                         |Marketing/Feasibility Studies             :     9 :       19.15%:
                                         |                                          :       :             :
                                         |Post Construction/Evaluation              :    18 :       38.30%:
                                         |Schematic/Preliminary Land Planning       :    27 :       57.45%:
                                         |Pre-Design                                :    22 :       46.81%:
                                         |Site Selection                            :    21 :       44.68%:
                                         |Planting Plans                            :    36 :       76.60%:
                                         |                                          :       :             :
                                         |Master Plans                              :    31 :       65.96%:
                                         |Preliminary Construction Cost Estimating  :    24 :       51.06%:
                                         |Irrigation                                :    29 :       61.70%:
                                         |Feasibility Studies                       :    17 :       36.17%:
                                         |Presentation Graphics/Public Presentations :    30 :       63.83%:
                                         |                                          :       :             :
                                         |Design Team Coordination                  :    17 :       36.17%:
                                         |Construction Documents                    :    22 :       46.81%:
                                         |Site Layout                               :    28 :       59.57%:
                                         |Program Development                     :    19 :       40.43%:
                                         |Lighting design                           :    26 :       55.32%:
                                         |                                          :       :             :
                                         |Bidding(Negotiations)                     :    23 :       48.94%:
                                         |Project Administration                    :    21 :       44.68%:
                                         |Details, Materials, Specifications        :    31 :       65.96%:
                                         |Road Alignment and Profiles               :    17 :       36.17%:
                                         |Life Cycle/Value Analysis                 :    16 :       34.04%:
                                         |                                          :       :             :
                                         |Grading and Drainage Details              :    22 :       46.81%:
                                         |Sewer Collection                          :    10 :       21.28%:
                                         |Water Distribution                        :    12 :       25.53%:
                                         |Construction Administration               :    14 :       29.79%:
                                         |Maintenance Reviews and Scheduling        :    17 :       36.17%:
                                         |Other, please explain                     :     0 :        0.00%:
                                         |------------------------------------------:---------:------------:
```

```
VARIABLE= Employ in Firm          I  M  P  R  O  V  E                          QUESTION # 12
                                  |S  E  R  V  I  C  E  S                    :Raw Data :Percentages :
                                  |-----------------------------------------:---------:------------:
                                  |Design Development/Site Planning          :      6 :     12.77%:
                                  |Agency Consul./Review Approv./Zoning Assist. :   7 :     14.89%:
                                  |Project Financing/Project Budgeting       :     10 :     21.28%:
                                  |Site Analysis                             :     11 :     23.40%:
                                  |Erosion Control                           :      7 :     14.89%:
                                  |                                          :        :           :
                                  |Storm Drainage                            :     10 :     21.28%:
                                  |Environmental Studies                     :      6 :     12.77%:
                                  |Financial Analysis                        :      7 :     14.89%:
                                  |Project Development Scheduling            :      5 :     10.64%:
                                  |Marketing/Feasibility Studies             :      7 :     14.89%:
                                  |                                          :        :           :
                                  |Post Construction/Evaluation              :      7 :     14.89%:
                                  |Schematic/Preliminary Land Planning       :      7 :     14.89%:
                                  |Pre-Design                                :      4 :      8.51%:
                                  |Site Selection                            :      4 :      8.51%:
                                  |Planting Plans                            :      9 :     19.15%:
                                  |                                          :        :           :
                                  |Master Plans                              :      7 :     14.89%:
                                  |Preliminary Construction Cost Estimating  :      8 :     17.02%:
                                  |Irrigation                                :      8 :     17.02%:
                                  |Feasibility Studies                       :      9 :     19.15%:
                                  |Presentation Graphics/Public Presentations :     9 :     19.15%:
                                  |                                          :        :           :
                                  |Design Team Coordination                  :     11 :     23.40%:
                                  |Construction Documents                    :      5 :     10.64%:
                                  |Site Layout                               :      7 :     14.89%:
                                  |Program Development                      :      4 :      8.51%:
                                  |Lighting design                           :     12 :     25.53%:
                                  |                                          :        :           :
                                  |Bidding(Negotiations)                     :      5 :     10.64%:
                                  |Project Administration                    :      9 :     19.15%:
                                  |Details, Materials, Specifications        :      8 :     17.02%:
                                  |Road Alignment and Profiles               :      4 :      8.51%:
                                  |Life Cycle/Value Analysis                 :     10 :     21.28%:
                                  |                                          :        :           :
                                  |Grading and Drainage Details              :      7 :     14.89%:
                                  |Sewer Collection                          :      3 :      6.38%:
                                  |Water Distribution                        :      4 :      8.51%:
                                  |Construction Administration               :      8 :     17.02%:
                                  |Maintenance Reviews and Scheduling        :      6 :     12.77%:
                                  |Other, please explain                     :      0 :      0.00%:
                                  |-----------------------------------------:---------:------------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES
```

```
D A T A
```

```
VARIABLE= Hired Consultants

Response using variable:      268

TOTAL # SENT          1283
TOTAL # RETURNED       318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
|===========================:=========:==========:
|QUESTIONS                  :Raw Data :Percentage:
|===========================:=========:==========:
|QUESTION 1 --REGIONS       :         :          :
|Northeast States           :      95 :    19.15%:
|Southeast States           :     116 :    23.39%:
|Great Lake States          :      53 :    10.69%:
|Midwest States             :      48 :     9.68%:
|Southwest States           :      58 :    11.69%:
|Pacific Northwest States   :      32 :     6.45%:
|Pacific Southwest States   :      84 :    16.94%:
|International Markets      :      10 :     2.02%:
|                           :         :          :
|---------------------------:---------:----------:
|QUESTION 2--DEVELOPMENT    :         :          :
|Building                   :      93 :    34.70%:
|Land                       :      13 :     4.85%:
|Both                       :     156 :    58.21%:
|---------------------------:---------:----------:
|QUESTION 3--SPECIFIC DEV.  :         :          :
|Commercial                 :     194 :    22.43%:
|Industrial                 :     185 :    21.39%:
|Residential                :      98 :    11.33%:
|Office                     :     207 :    23.93%:
|Resort/Recreation          :      40 :     4.62%:
|Shopping Centers           :     116 :    13.41%:
|Other                      :      25 :     2.89%:
|---------------------------:---------:----------:
|QUESTION 4--ORGANIZATIONS  :         :          :
|AIA                        :      55 :     9.60%:
|APA                        :       8 :     1.40%:
|ASCE                       :      24 :     4.19%:
|ASLA                       :       3 :     0.52%:
|ARROA                      :      12 :     2.09%:
|ULI                        :     132 :    23.04%:
|NAHB                       :      39 :     6.81%:
|NAIOP                      :     230 :    40.14%:
|Other                      :      70 :    12.22%:
|---------------------------:---------:----------:
|QUESTION 5--YRS EXPERIENCE :         :          :
|0 - 10                     :      48 :    17.91%:
|11 -20                     :      84 :    31.34%:
|21 - 30                    :      86 :    32.09%:
|31 - 40                    :      20 :     7.46%:
|41 - 50                    :       8 :     2.99%:
|Over 51                    :      19 :     7.09%:
|---------------------------:---------:----------:
```

```
|-------------------------:---------:----------:
|QUESTION 6--ACRES        :         :          :
|0 - 30                   :      74 :    27.61%:
|30 - 100                 :      79 :    29.48%:
|101 - 200                :      43 :    16.04%:
|201 - 300                :      12 :     4.48%:
|301 - 500                :      17 :     6.34%:
|Over 500                 :      38 :    14.18%:
|-------------------------:---------:----------:
|QUESTION 7--$ VOLUME     :         :          :
|0 - $100,000             :       4 :     1.49%:
|$100,00 - $250,000       :       4 :     1.49%:
|$250,000 - $500,000      :       5 :     1.87%:
|$500,000 - 1 million     :      13 :     4.85%:
|1 million - 2 million    :      21 :     7.84%:
|2 million - 5 million    :      39 :    14.55%:
|Over 5 million dollars   :     177 :    66.04%:
|-------------------------:---------:----------:
|QUESTION 8--USE LA'S     :         :          :
|Yes                      :     249 :    92.91%:
|No                       :      16 :     5.97%:
|-------------------------:---------:----------:
|QUESTION 13--STAGES      :         :          :
|Early                    :     154 :    57.46%:
|Middle                   :      49 :    18.28%:
|Late                     :      33 :    12.31%:
|-------------------------:---------:----------:
|QUESTION 14--EMPLOY IN FIRM:       :          :
|Yes                      :       0 :     0.00%:
|No                       :     268 :   100.00%:
|-------------------------:---------:----------:
|QUESTION 15--SUPERVISORY :         :          :
|Never                    :      93 :    34.70%:
|Almost Never             :      50 :    18.66%:
|Sometimes                :      64 :    23.88%:
|Almost Always            :      35 :    13.06%:
|Always                   :      18 :     6.72%:
|-------------------------:---------:----------:
|QUESTION 16--RATING      :         :          :
|Inferior                 :       3 :     1.12%:
|Fair                     :      65 :    24.25%:
|Good                     :     135 :    50.37%:
|Excellent                :      37 :    13.81%:
|No Basis For Judgement   :      15 :     5.60%:
|-------------------------:---------:----------:
|QUESTION 17--VALUE       :         :          :
|Of No Value              :       1 :     0.37%:
|Minimal Value            :      20 :     7.46%:
|Moderate Value           :      60 :    22.39%:
|Considerable Value       :     134 :    50.00%:
|Major Value              :      45 :    16.79%:
|-------------------------:---------:----------:
```

```
SURVEY OF DEVELOPER'S PERCEPTIONS
OF LANDSCAPE ARCHITECTURAL SERVICES

VARIABLE= Hired Consultants

Response using variable:      268


TOTAL # SENT         1283
TOTAL # RETURNED      318
RESPONSE RATE       24.79%

TOTAL # OF RESPONSES PER QUESTION
Q1=   314 |  Q10=    222 |
Q2=   309 |  Q11=    233 |
Q3=   317 |  Q12=    187 |
Q4=   317 |  Q13=    270 |
Q5=   314 |  Q14=    315 |
Q6=   312 |  Q15=    305 |
Q7=   309 |  Q16=    301 |
Q8=   313 |  Q17=    306 |
Q9=   293 |              |
==========|==============|
```

```
 H  I  R  E  D                                          QUESTION # 9
|S  E  R  V  I  C  E  S                        :Raw Data :Percentages :
|---------------------------------------------:---------:------------:
|Design Development/Site Planning             :    200 :      74.63%:
|Agency Consul./Review Approv./Zoning Assist. :    115 :      42.91%:
|Project Financing/Project Budgeting          :     53 :      19.78%:
|Site Analysis                                :    129 :      48.13%:
|Erosion Control                              :     87 :      32.46%:
|                                             :        :            :
|Storm Drainage                               :     52 :      19.40%:
|Environmental Studies                        :     54 :      20.15%:
|Financial Analysis                           :     10 :       3.73%:
|Project Development Scheduling               :     26 :       9.70%:
|Marketing/Feasibility Studies                :     17 :       6.34%:
|                                             :        :            :
|Post Construction/Evaluation                 :     48 :      17.91%:
|Schematic/Preliminary Land Planning          :    136 :      50.75%:
|Pre-Design                                   :     92 :      34.33%:
|Site Selection                               :     20 :       7.46%:
|Planting Plans                               :    226 :      84.33%:
|                                             :        :            :
|Master Plans                                 :    123 :      45.90%:
|Preliminary Construction Cost Estimating     :     83 :      30.97%:
|Irrigation                                   :    161 :      60.07%:
|Feasibility Studies                          :     33 :      12.31%:
|Presentation Graphics/Public Presentations   :    134 :      50.00%:
|                                             :        :            :
|Design Team Coordination                     :     54 :      20.15%:
|Construction Documents                       :    105 :      39.18%:
|Site Layout                                  :    117 :      43.66%:
|Program Development                         :     39 :     14.55%:
|Lighting design                              :     92 :      34.33%:
|                                             :        :            :
|Bidding(Negotiations)                        :     75 :      27.99%:
|Project Administration                       :     61 :      22.76%:
|Details, Materials, Specifications           :    138 :      51.49%:
|Road Alignment and Profiles                  :     52 :      19.40%:
|Life Cycle/Value Analysis                    :     21 :       7.84%:
|                                             :        :            :
|Grading and Drainage Details                 :     69 :      25.75%:
|Sewer Collection                             :     20 :       7.46%:
|Water Distribution                           :     28 :      10.45%:
|Construction Administration                  :     30 :      11.19%:
|Maintenance Reviews and Scheduling           :     66 :      24.63%:
|Other, please explain                        :      7 :       2.61%:
|---------------------------------------------:---------:------------:
```

```
VARIABLE= Hired Consultants        P  E  R  C  E  I  V  E                       QUESTION # 10
                                   |S  E  R  V  I  C  E  S             :Raw Data :Percentages :
                                   |-----------------------------------------:---------:------------:
                                   |Design Development/Site Planning          :   138 :     51.49%:
                                   |Agency Consul./Review Approv./Zoning Assist. :   93 :     34.70%:
                                   |Project Financing/Project Budgeting       :    38 :     14.18%:
                                   |Site Analysis                             :   101 :     37.69%:
                                   |Erosion Control                           :    88 :     32.84%:
                                   |                                          :       :           :
                                   |Storm Drainage                            :    51 :     19.03%:
                                   |Environmental Studies                     :    59 :     22.01%:
                                   |Financial Analysis                        :     9 :      3.36%:
                                   |Project Development Scheduling            :    26 :      9.70%:
                                   |Marketing/Feasibility Studies             :    19 :      7.09%:
                                   |                                          :       :           :
                                   |Post Construction/Evaluation              :    49 :     18.28%:
                                   |Schematic/Preliminary Land Planning       :   112 :     41.79%:
                                   |Pre-Design                                :    89 :     33.21%:
                                   |Site Selection                            :    33 :     12.31%:
                                   |Planting Plans                            :   165 :     61.57%:
                                   |                                          :       :           :
                                   |Master Plans                              :   101 :     37.69%:
                                   |Preliminary Construction Cost Estimating  :    64 :     23.88%:
                                   |Irrigation                                :   131 :     48.88%:
                                   |Feasibility Studies                       :    36 :     13.43%:
                                   |Presentation Graphics/Public Presentations :  118 :     44.03%:
                                   |                                          :       :           :
                                   |Design Team Coordination                  :    38 :     14.18%:
                                   |Construction Documents                    :    84 :     31.34%:
                                   |Site Layout                               :    95 :     35.45%:
                                   |Program Development                       :    42 :     15.67%:
                                   |Lighting design                           :    81 :     30.22%:
                                   |                                          :       :           :
                                   |Bidding(Negotiations)                     :    65 :     24.25%:
                                   |Project Administration                    :    53 :     19.78%:
                                   |Details, Materials, Specifications        :   101 :     37.69%:
                                   |Road Alignment and Profiles               :    38 :     14.18%:
                                   |Life Cycle/Value Analysis                 :    28 :     10.45%:
                                   |                                          :       :           :
                                   |Grading and Drainage Details              :    67 :     25.00%:
                                   |Sewer Collection                          :    16 :      5.97%:
                                   |Water Distribution                        :    26 :      9.70%:
                                   |Construction Administration               :    31 :     11.57%:
                                   |Maintenance Reviews and Scheduling        :    63 :     23.51%:
                                   |Other, please explain                     :     9 :      3.36%:
                                   |-----------------------------------------:---------:------------:
```

```
VARIABLE= Hired Consultants              P  R  O  V  I  D  E                              QUESTION # 11
                                         |S  E  R  V  I  C  E  S                     :Raw Data :Percentages :
                                         |------------------------------------------:---------:------------:
                                         |Design Development/Site Planning           :   153 :     57.09%:
                                         |Agency Consul./Review Approv./Zoning Assist. :  126 :     47.01%:
                                         |Project Financing/Project Budgeting        :    71 :     26.49%:
                                         |Site Analysis                              :   134 :     50.00%:
                                         |Erosion Control                            :   121 :     45.15%:
                                         |                                           :       :           :
                                         |Storm Drainage                             :    76 :     28.36%:
                                         |Environmental Studies                      :    87 :     32.46%:
                                         |Financial Analysis                         :    26 :      9.70%:
                                         |Project Development Scheduling             :    42 :     15.67%:
                                         |Marketing/Feasibility Studies              :    30 :     11.19%:
                                         |                                           :       :           :
                                         |Post Construction/Evaluation               :    81 :     30.22%:
                                         |Schematic/Preliminary Land Planning        :   129 :     48.13%:
                                         |Pre-Design                                 :   108 :     40.30%:
                                         |Site Selection                             :    65 :     24.25%:
                                         |Planting Plans                             :   170 :     63.43%:
                                         |                                           :       :           :
                                         |Master Plans                               :   119 :     44.40%:
                                         |Preliminary Construction Cost Estimating   :   100 :     37.31%:
                                         |Irrigation                                 :   150 :     55.97%:
                                         |Feasibility Studies                        :    61 :     22.76%:
                                         |Presentation Graphics/Public Presentations :   134 :     50.00%:
                                         |                                           :       :           :
                                         |Design Team Coordination                   :    63 :     23.51%:
                                         |Construction Documents                     :   102 :     38.06%:
                                         |Site Layout                                :   112 :     41.79%:
                                         |Program Development                        :    66 :     24.63%:
                                         |Lighting design                            :   104 :     38.81%:
                                         |                                           :       :           :
                                         |Bidding(Negotiations)                      :    85 :     31.72%:
                                         |Project Administration                     :    82 :     30.60%:
                                         |Details, Materials, Specifications         :   119 :     44.40%:
                                         |Road Alignment and Profiles                :    56 :     20.90%:
                                         |Life Cycle/Value Analysis                  :    59 :     22.01%:
                                         |                                           :       :           :
                                         |Grading and Drainage Details               :    85 :     31.72%:
                                         |Sewer Collection                           :    30 :     11.19%:
                                         |Water Distribution                         :    41 :     15.30%:
                                         |Construction Administration                :    52 :     19.40%:
                                         |Maintenance Reviews and Scheduling         :    81 :     30.22%:
                                         |Other, please explain                      :     7 :      2.61%:
                                         |------------------------------------------:---------:------------:
```

```
VARIABLE= Hired Consultants            I  M  P  R  O  V  E                               QUESTION # 12
                                       |S  E  R  V  I  C  E  S                     :Raw Data :Percentages :
                                       |-------------------------------------------:---------:------------:
                                       |Design Development/Site Planning           :     43 :      16.04%:
                                       |Agency Consul./Review Approv./Zoning Assist. :   57 :      21.27%:
                                       |Project Financing/Project Budgeting        :     55 :      20.52%:
                                       |Site Analysis                              :     43 :      16.04%:
                                       |Erosion Control                            :     33 :      12.31%:
                                       |                                           :        :            :
                                       |Storm Drainage                             :     27 :      10.07%:
                                       |Environmental Studies                      :     32 :      11.94%:
                                       |Financial Analysis                         :     22 :       8.21%:
                                       |Project Development Scheduling             :     17 :       6.34%:
                                       |Marketing/Feasibility Studies              :     22 :       8.21%:
                                       |                                           :        :            :
                                       |Post Construction/Evaluation               :     27 :      10.07%:
                                       |Schematic/Preliminary Land Planning        :     37 :      13.81%:
                                       |Pre-Design                                 :     27 :      10.07%:
                                       |Site Selection                             :     20 :       7.46%:
                                       |Planting Plans                             :     35 :      13.06%:
                                       |                                           :        :            :
                                       |Master Plans                               :     47 :      17.54%:
                                       |Preliminary Construction Cost Estimating   :     57 :      21.27%:
                                       |Irrigation                                 :     34 :      12.69%:
                                       |Feasibility Studies                        :     37 :      13.81%:
                                       |Presentation Graphics/Public Presentations :     30 :      11.19%:
                                       |                                           :        :            :
                                       |Design Team Coordination                   :     29 :      10.82%:
                                       |Construction Documents                     :     28 :      10.45%:
                                       |Site Layout                                :     30 :      11.19%:
                                       |Progrma Development                       :     29 :      10.82%:
                                       |Lighting design                            :     43 :      16.04%:
                                       |                                           :        :            :
                                       |Bidding(Negotiations)                      :     34 :      12.69%:
                                       |Project Administration                     :     31 :      11.57%:
                                       |Details, Materials, Specifications         :     34 :      12.69%:
                                       |Road Alignment and Profiles                :     19 :       7.09%:
                                       |Life Cycle/Value Analysis                  :     40 :      14.93%:
                                       |                                           :        :            :
                                       |Grading and Drainage Details               :     34 :      12.69%:
                                       |Sewer Collection                           :     13 :       4.85%:
                                       |Water Distribution                         :     16 :       5.97%:
                                       |Construction Administration                :     24 :       8.96%:
                                       |Maintenance Reviews and Scheduling         :     29 :      10.82%:
                                       |Other, please explain                      :      7 :       2.61%:
                                       |-------------------------------------------:---------:------------:
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APPENDIX E

DEVELOPER'S GENERAL COMMENTS

"Many of these services can not and should not be carried out solely by a L.A. He or she must be part of a team with their own special area of expertise. This also holds true for civil engineer, architects, etc."

"Some rate (concerning the rating of landscape architectural services) as a #1 and some rate a #4. That is part of the problem. A L.A. working out of a garden center is usually not qualified to get involved in most of the services mentioned on the previous page. On the other hand some of the top architectural and LA firms offer high quality LA services."

"With more and more pressure being placed on our environment every day the environment gets more attention worldwide, media etc., thus so many newer laws. This is an ideal time for L.A.'s to take the lead role in this arena as stewards of the land. But we must earn it. We have got to overcome our gardener identity! I believe this is slowly happening."

"Good luck! More LA programs should be doing this . . ."

"The profession has got to get a better handle on the numbers and the development process and get out of the "design" diagram world. I should know - I was once there. My degree is in LA and I am now a developer."

"Unfortunately, we have not found any design consultant which has been able to satisfy criteria as underlined in item #10. (what services do you perceive landscape architects performing completely and competently)"

"The service rating and value is a function of the individual, not the profession."

"How to get the most "curb appeal" for the least cost."

"Historically, LA's suffer from an identical, possibly worse reputation than architects as wide eyed dreamers and not pragmatic professionals. Marketing efforts and educational time needs to be spent on the dollars and sense necessary to balance the design. One without the other cannot stand alone for long."

"In this region, (northeast) landscaping is a major aspect of a projects overall look, feel and perception in the marketplace. There are, however, very few good landscape architects. There is a need for more practical field development knowledge types who understand the dollars and cents (sense?) of design and its impact on the overall project."

"I graduated with BSLA from Texas A & M 1969 - practiced 6 years as a LA, then City Planning for 9 years - now development."

"Installers must be monitored. Maintenance contracts must be explicit."

"Our firm prides ourselves in extensive landscaping of our projects. Often we use two separate landscape architects to design hard and soft scopes of a project. They tend to be always over budget with their design and require rework of a number of plantings and size, etc. Our firm has a good knowledge of materials and can successfully make these revisions without ruining the project design. Landscape architects tend to be dreamers and therefore we establish tight criteria on what we what from the start, then after we get the initial design we estimate the hardscaping cost and soft scope costs and get back with them with where we need to adjust to fit a particular budget."

"I am a landscape architect by education and experience. I have often thought of giving a course in real estate development to landscape architecture students. This would broaden their education and future job prospects."

"I don't perceive them doing anything but a landscape plan - plant trees."

"They could provide many of the services if the county/city/political entity accepts their plans - registered engineers."

"Need to improve many of the services."

"There is no substitute for increasing the rental or sales value of property for such a low investment as landscaping - well done -."

"All projects to be successfully must have curb appeal. First impressions are important."

"I feel that the landscape architect is of real value during the design and budget process but not during the development process."

"Our in house landscape architect provides us with the following services which improve quality and save $.

1. Involved in selection and administration of most soil and civil consultants, and checks their work.
2. In house master planning and design.
3. Helps us avoid costly construction errors through site analysis, involved cut/fill calcs, zoning and utility issues, etc."

"We are landscape architects, and planners and economists."

"We are a multi-disciplined planning firm so our answers are skewed by our services and those we perform for clients. We do not do much production landscape architecture although our founders are landscape architects."

"Often landscape architects put too much into plans and it takes very careful review to verify cost-effectiveness and long term benefits versus short term."

"Our landscape architects are both employers and consultants are adequate and need no more than normal advancement and improvement."

"The proper analysis of land and its development MUST have a landscape architect involved."

"Landscape architects should be practical within design - need sturdy, minimum care plantings in Great lakes area with our temperature extremes."

"Engineering firms usually handle either directly or indirectly."

"In a mature industrial market, appearance, prestige, park covenants and other recognizable national tenants give an edge over the competition.

If price is the sole criterion prospective tenants will gravitate to the more intensely developed sites or the older buildings.

Safe and proximate accessibility to major traffic arteries is essential. Also, a choice of several exits from the park is desirable."

"We have not used LA's enough to be able to propose areas of improvement. Our experience is that landscape architects are capable and professional."

"On some developments landscape architecture is critical links with city planning authorities, other projects only landscape design is called for."

"I am not sufficiently familiar with the profession only by individual firms. Each firm's strengths (like any profession) vary greatly. We pick a firm based on a projects requirements."
"Do not know what landscape architecture's range of services include - as well as expertise in the same."

"Landscape architecture is a poor definition designation of what services rendered or perceived to the rendered. "Landscape is a definable word and this limits activities in my mind when extracurricular services required and who does such services."

"Our quote on landscaping . . . 90% of the site impact is made by 10% of the project cost."

"I guess for me are more nitty gritty -- cost, ease of maintenance, help in getting agency approval - i.e. environmental issue."

"Landscape architects are capable for 'landscape' design and environmental analysis. However all to often encroach into the planning discipline (master and site) and embarrass themselves."

"Landscaping enhances the finished project."

"I rarely do a project without a landscape architect in some capacity. However, their weakness appears to be in planting plans - though not in the design. Rarely have landscape architects that I have employed understood the contractor has to be able to procure the material without necessarily going 500 - 1000 miles away to get it!"

"We use land planners for many services that may overlap into landscape architecture."

"The landscape architects need to concentrate on bringing more landscaping into a project for less money and concentrate on how to cut and trim maintenance costs after it is installed."

"But it should be more" (in reference to the individual's estimated minimal value of landscape architectural services."

"Most landscape architects let cities determine their plans and plant materials versus going into the city and show them how a more imaginative plan could create a better look for the project and the city. Just because it takes less time!!"

"Landscape programs should offer and prepare graduates for legal and governmental aspects of land use change, re-zoning, pd's, plan review processes, etc., although - varying from city to city, region to region, overview is critical."

"Landscape architect's usually get involved late and do planting plans. Engineers don't perceive them as experienced in "hard" aspects of jobs."

"Landscape architects shouldn't try to provide services more appropriately done by civil engineers. Generally, they lack the mathematical skills necessary to detailed drainage and grading studies."

"We feel Landscaping is the most important item of our facilities and spend a great deal more money than most developers to achieve a beautiful look. We found most "landscape designers" don't know their butts from a bucket of green paint. They not only screwed up our project, they cost us a lot of money in fees. I'd **never** use one again!"

"I don't anymore -- they're a waste of time and **$**." (response to when they use landscape architects."

"They should be major value - but firms don't provide the utmost service."

"If they desire . . . these services could be provided (the service list), however firms today don't provide full-service."

"Always room for improvement."

"Need better correlation between preliminary estimation and final costs."

"Difficult to find a creative landscape architect willing to work within the constraints of a limited budget on speculative project without sacrificing over all design. The ultimate intent of the developer is frequently misunderstood or ignored."

"Landscaping is of paramount importance in marketing and value retention of our properties. The initial cost of conversation and plans is usually very potentially high compared with architects, engineers and other professionals."

"Pay closer attention to soil conditions and specify plant materials which will be durable and easily maintained. Landscaping specifications in the General Conditions of Contract. Contracts need improvements."

"In my opinion landscape architects need to pay more attention to detail when preparing landscape plans - i.e. make certain the plans clearly define the work to be performed. Practical concerns need more emphasis - attractive yet hardy and easily maintained plant materials should be specified. The availability and cost of plant materials should be of prime consideration. The specifications should clearly define responsibility for maintenance, warranty periods, etc. The landscape architect should make certain that all parties to the agreement (owner, general contractor, landscape contractor) understand who is responsible for maintenance and for what period. Landscape architects should review the soils reports to determine if the topsoil is adequate for growing grass and plants."

"Landscape architects is usually a subcontractor to the architect."

"We are very landscaping oriented and have even a number of awards for our projects landscaping. We very much believe in using landscape architecture profession."

"Landscape architecture needs to be more specific responsive to the needs of the development and not the landscape architect . . . the plants, planting, design layout, materials, location need to be responsive to price, weather, sun, type of building, use long or short goals of the development project. Was it built for sale? Was it built for ego and show? Was it built for long term asset holding? Etc. Does the owner know how to maintain the plantings after they are installed, is a maintenance manual provided. Does the landscape architect know (really know) how to care for the product after installation? The types and value of watering and watering system and weeding and the fertilization of the planting material. More hands on knowledge and less book work."

"In the project approval process in the city of Los Angeles, where we operate, we tend to rely on our civil engineers very heavily to the detriment of landscape architects."

"Landscape architects need to understand and work within budget realities."

"The cost of landscape architecture is cost beneficial in projects on the large scale."

"In questions 9 - 12 those items related to financial, marketing, budgeting, or any pre-construction planning were only considered as they related to land planning not actual building construction. Also any project administration was only considered as it relates to the landscaping portion of build out. Although we work with landscape architects extensively we prefer to use them as a team member along with architects and civil engineers."

"We generally retain services of an architect who hires landscape architect for complete design team approach. We usually do not work direct with landscape architects."

"The good architectural firms we have worked with have used outside landscape architectural firms when they have not had the in-house expertise. It is not uncommon for lesser architectural firms to feel threatened by the existence of other architectural firm and therefore they will not use a landscape architect."

"We've stopped using landscape architects to do irrigation plans because they are almost always changed by the installer and thus we have to get them revised. Often the installer can prepare a better plan. So we get him/her (the installer) to give us an as built after the work is done. Field conditions often require changes. I would prefer seeing the common names of the tree, shrub or plant given preference on the plans over the botanical name. It would be nice to see a cut sheet with a photo and characteristics of each tree and shrub to the owners plans or bid package. All too often we end up flipping through books to find them."

"Creativity with budget consciousness is vital."

"Ability to get the most from limited budgets."

"The firm we use is an engineering/landscape architectural firm and therefore in our opinion, provides a larger service than a "typical" landscape architectural firm."

"I would like them to explain things more - such as why certain plants do or don't do well, why certain soil preparations are necessary, what the landscape will look like when mature, what my choices are for things like cost of materials versus lifetime maintenance costs."

"Landscaping is a major point of marketing and overall feel of a project but I have had little success in finding a landscape architect who wants to or can do more than give me a plan for plants around a house."

"We want to foster creative tension between architect, civil engineer and landscape designer, though doing so makes coordination more difficult. Thus we may begin having the landscape architect work for the building architect."

"We'd like to see something different."

"Make their availability more known to developers (about landscape architectural services)."

"Dependent upon the site location, site amenities, neighborhood, type of project, the landscape architect should be brought in early to establish the tone of the project and maximize the advantages of the site and location."

"Landscape architect needs = more ability to take development project info and decipher how costly a plan to put in place, (a number ability)."

"To date the landscape architects have only been useful in color renderings to obtain approvals"

"The area of greatest difficulty in our current experience has been; the firms ability to design to budget constraints, designing plant materials that are not successful, providing services on time and with all disciplines coordinated."

"If they want to be more involved in the basic master planning of raw ground they need to be more familiar with building utilization and civil engineering criteria (street design, etc)."

"Background classes in site development (civil and architectural) are very helpful."

"Simply design of landscape and irrigation are not enough in the overall scheme of development to require a major preference." (comment about value of landscape architectural services)

"Landscape architects by default on the part of professional planners have become the professional a developers turns to when making decisions about a tract of land and gaining the appropriate approvals. Therefore, landscape architects need to become better jugglers of all the information regarding a property. For example, traffic studies and environmental questions are both key issues that need to be dealt with by landscape architects."

"They need to pay more attention to: 1) plant selection within budget boundaries 2)in our area water conservation is an issue so "drought resistant design" is an increasingly important criteria."

"I've always thought that the administrative role should be a logical direction for landscape architects, but most shy away, are not competent, or fail to make the necessary effort to be informed of the development process. Engineers, architects, and planners have evolved to it, few landscape architects; tendency to revert to the design roots, and show little concern towards the economics, financial and marketing side of lands development. Therefore are further relegated to the role of "planting plan."

"Our company is a national company divided into 12 regions. Our particular region covers the Midwest primarily and a portion of the Great Lakes Region. The company as a whole develops numerous types of property where a landscape architect is part of the construction team from the beginning however, our region does minimal development. We purchase existing buildings primarily and have responsibility for asset management. We have used landscape architects during renovations, repairs and rehabilitation."

"Peachtree City is a totally planned community and landscape architects have been involved since the start of the project."

"Landscape architects that we have used know very, very, little about real world issues like cost, construction schedules, etc. instead they see themselves as artists, needed desperately is real world awareness in the profession."

"There seems to be a tendency to use the same plants, trees etc. There is a need for greater flexibility and creativity."

"Most landscape architects seem weak in the civil engineering aspect, roads, drainage."

"I see the landscape architect as taking a passive role in the development process and not managing other disciplines."

"Need to improve in all areas continually."

Developer's Perception of Landscape Architectural Services

By

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B.S.N.R., University of Michigan, 1986

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ABSTRACT

According to Albert Fein's report, A Study of the Profession of Landscape Architecture (1972), it is the dominant opinion of land developers "that in large proportions of their construction activities there is no need for landscape architects" (Fein, 1972). The Fein report was completed almost twenty years ago and it has been suggested that landscape architects have improved their image in the eyes of developers.

The purpose of this research is to investigate whether the profession of landscape architecture, as perceived by developers, has improved their image since the Fein report of 1972. For this study, three major issues were investigated: 1) to determine if developers use landscape architects, and if so, for what services, 2) how developers rate and value landscape architectural services and 3) how landscape architects can improve their services to be a more effective player in the development arena.

A nation-wide survey of developers was conducted for this study. The population consisted of members of various professional organizations. Specifically, the population was derived from a members list of the National Association of Industrial and Office Park developers (NAIOP), a Who's Who list from the American Residential Resort Developers (ARRDA), and the 1987 Building Design and Construction Top 300 Builders. The Top 300 list was provided by The Urban Land Institute, as representative of its members. It was the researchers intentions to survey the "trend setters" in the development profession.

The research confirmed the fact that landscape architects have improved their image in the eyes of developers and they are utilizing landscape architects more often in their development process. Additionally, developers rate the services they are receiving very highly. This is most evident where landscape architects are working directly for development companies. In this situation, landscape architects are involved in the greatest number of services and some are involved in the early stages of the development process. The profession has and is progressing forward, but there is still room for improvement, especially with services related to financial aspects (i.e. preliminary construction cost estimating or project financing/project budgeting) of a development project.